

GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: February 21, 2006, 07:54:15 ; Search time 29.5 Seconds
(without alignments)
61.970 Million cell updates/sec

Title: US-10-601-059-11

Perfect score: 114

Sequence: 1 PRGPNPDVANYNFFPRPK 19

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

PIR 80.*

1: pir1.*

2: pir2.*

3: pir3.*

4: pir4.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	114	100.0	660	1 A28153	gelatinase A (EC 3
2	114	100.0	662	2 S70365	gelatinase A (EC 3
3	114	100.0	662	2 A42496	gelatinase A (EC 3
4	114	100.0	662	2 S34780	gelatinase A (EC 3
5	114	100.0	663	1 S46492	gelatinase A (EC 3
6	82	71.9	483	2 JC5743	matrix metalloprot
7	78	68.4	267	1 KCHUM	matrilysin (EC 3.4
8	72	63.2	471	2 A53711	collagenase 3 (EC
9	72	63.2	472	2 S29243	interstitial colla
10	69	60.5	466	2 A23685	interstitial colla
11	68	59.6	267	2 A57490	matrilysin (EC 3.4
12	67	58.8	377	2 T00643	zinc metalloprotei
13	66	57.9	475	1 KCRTH	stromelysin 1 (EC
14	66	57.9	476	1 JC6505	stromelysin 2 (EC
15	66	57.9	476	1 KCHUS2	stromelysin 2 (EC
16	66	57.9	476	1 KCRTS2	stromelysin 1 (EC
17	66	57.9	477	1 KCMS1	stromelysin 1 (EC
18	66	57.9	478	1 KCRBS1	stromelysin 1 (EC
19	63	55.3	477	1 KCHUS1	stromelysin 1 (EC
20	60.5	53.1	378	2 S96724	hypothetical prote
21	57	50.0	468	1 KCRBI	interstitial colla
22	57	50.0	469	1 KCPGI	interstitial colla
23	51	44.7	258	1 S36783	venombin A (EC 3.4
24	51	44.7	467	1 KCHUN	neutrophil collage
25	51	44.7	469	1 KCBOI	interstitial colla
26	50.5	44.3	635	2 T22321	hypothetical prote
27	50	43.9	470	2 A49499	metalloelastase HM
28	49.5	43.4	305	2 T08836	probable metallopr
29	49	43.0	469	1 KCHUI	interstitial colla

RESULT 1

A28153

gelatinase A (EC 3.4.24.24) precursor - human

N;Alternate names: collagenase type IV; matrix metalloproteinase 2 (MMP2); progelatinase

C;Species: Homo sapiens (man)

C;Date: 28-Aug-1989 #sequence revision 07-Jul-1995 #text change 09-Jul-2004

C;Accession: A28153; A34202; A42225; A60187; S13858; S39436; A31480; S44433; A51498; S55

R;Collier, I.E.; Wilhelm, S.M.; Eisen, A.Z.; Marmar, B.L.; Grant, G.A.; Seitzer, J.L.; K

J. Biol. Chem. 263, 6579-6587, 1988

A;Title: H-ras oncogene-transformed human bronchial epithelial cells (TBE-1) secrete a s

A;Reference number: A28153; MUID:88198218; PMID:2834383

A;Accession: A28153

A;Molecule type: mRNA

A;Residues: 30-660 <COL>

A;Cross-references: UNIPROT:P08253; UNIPARC:UPI0000172CE7; GB:J03210; NID:g180670; PIDN:

R;Huhtala, P.; Eddy, R.L.; Fan, Y.S.; Byers, M.G.; Shows, T.B.; Tryggvason, K.

Genomics 6, 554-559, 1990

A;Title: Completion of the primary structure of the human type IV collagenase preproenzy

A;Reference number: A34202; MUID:90228972; PMID:2158484

A;Accession: A34202

A;Molecule type: DNA

A;Residues: 1-51 <HU2>

A;Cross-references: UNIPARC:UPI000016A6E3; GB:M33789; NID:g180600; PIDN:AAA52027.1; PID:

R;Huhtala, P.; Chow, L.T.; Tryggvason, K.

J. Biol. Chem. 265, 11077-11082, 1990

A;Title: Structure of the human type IV collagenase gene.

A;Reference number: A42225; MUID:90293047; PMID:2162831

A;Accession: A42225

A;Status: not compared with conceptual translation

A;Molecule type: DNA

A;Residues: 1-51;220-393 <HUH>

A;Cross-references: UNIPARC:UPI000016A6E3; UNIPARC:UPI0000172CE8; GB:M55593; GB:J05471;

A;Note: neither the complete amino acid nor the complete nucleotide sequence is given in

R;Frisch, S.M.; Reich, R.; Collier, I.E.; Genrich, L.T.; Martin, G.; Goldberg, G.I.

Oncogene 5, 75-83, 1990

A;Title: Adenovirus E1a represses protease gene expression and inhibits metastasis of hu

A;Reference number: A60187; MUID:90206614; PMID:2157183

A;Accession: A60187

A;Status: not compared with conceptual translation

A;Molecule type: DNA

A;Residues: 1-58 <FRI>

A;Cross-references: UNIPARC:UPI0000172CE9

R;Okada, Y.; Morodomi, T.; Enghild, J.J.; Suzuki, K.; Yasui, A.; Nakanishi, I.; Salvessen

Eur. J. Biochem. 194, 721-730, 1990

A;Title: Matrix metalloproteinase 2 from human rheumatoid synovial fibroblasts. Purifica

A;Reference number: S13858; MUID:91099351; PMID:2269296

A;Accession: S13858

A;Molecule type: protein

A;Residues: 30-45;110-124 <OKA>

A;Cross-references: UNIPARC:UPI0000172CEA; UNIPARC:UPI0000172CEB

R;Crabbe, T.; Ioannou, C.; Docherty, A.J.P.

Eur. J. Biochem. 218, 431-438, 1993

A;Title: Human progelatinase A can be activated by autolysis at a rate that is concentrated
A;Reference number: S39436; MUID:94094834; PMID:8269931
A;Accession: S39436
A;Molecule type: protein
A;Residues: 30-44;444-456 <CR2>
A;Cross-references: UNIPARC:UPI00000172CEC
R;Stetler-Stevenson, W.G.; Kruttsch, H.C.; Wachter, M.P.; Margulies, I.M.K.; Liotta, L.A.
J. Biol. Chem. 284, 1353-1356, 1989
A;Title: The activation of human type IV collagenase proenzyme. Sequence identification
A;Reference number: A31480; MUID:89109136; PMID:2536363
A;Accession: A31480
A;Molecule type: protein
A;Residues: 110-123 <STE>
A;Cross-references: UNIPARC:UPI0000158DA9
R;Crabbe, T.; Smith, B.; O'Connell, J.; Docherty, A.
FEBS Lett. 345, 14-16, 1994
A;Title: Human progelatinase A can be activated by matrilysin.
A;Reference number: S44432; MUID:94252395; PMID:8194591
A;Accession: S44432
A;Molecule type: protein
A;Residues: 110-115 <CRA>
A;Cross-references: UNIPARC:UPI0000172CED
R;Brown, D.; Chwa, M.; Escobar, M.; Kenney, M.C.
Exp. Eye Res. 52, 5-16, 1991
A;Title: Characterization of the major matrix degrading metalloproteinase of human cornea
A;Reference number: A61498; MUID:91330998; PMID:1868885
A;Accession: A61498
A;Molecule type: protein
A;Residues: 'X', '31', 'X', '33-46', 'X', '48-50', 'Q' <BRO>
A;Cross-references: UNIPARC:UPI0000172CEE
A;Experimental source: corneal stroma
R;Ittoh, Y.; Binner, S.; Nagase, H.
Biochem. J. 308, 645-651, 1995
A;Title: Steps involved in activation of the complex of pro-matrix metalloproteinase 2
A;Reference number: S55327; MUID:95290003; PMID:7772054
A;Accession: S55327
A;Molecule type: protein
A;Residues: 110-114 <ITO>
A;Cross-references: UNIPARC:UPI0000172CFB
C;Genetics:
A;Gene: GDB:MMP2; CLG4; OMIM:120360
A;Map position: 16q13-16q13
A;Introns: 51/3; 127/2; 178/1; 220/1; 278/1; 336/1; 394/1; 446/1; 491/2; 537/1; 590/2; 6
C;Function:
A;Description: proteolytic cleavage of gelatin type I and collagen types IV, V, VII, and
C;Superfamily: gelatinase A; fibronectin type II repeat homology; hemopexin repeat homol
C;Keywords: extracellular matrix; fibroblast; glycoprotein; hydrolase; metalloproteinase
F;1-29/Domain: signal sequence #status predicted <SIG>
F;30-660/Product: progelatinase A #status predicted <PRO>
F;30-109/Domain: activation peptide #status predicted <ACT>
F;70-219,394-446/Domain: matrix metalloproteinase homology #status atypical <MMP>
F;110-660/Product: gelatinase A #status predicted <MAT>
F;233-390/Region: collagen binding #status predicted
F;233-274/Domain: fibronectin type II repeat homology <2F1>
F;291-332/Domain: fibronectin type II repeat homology <2F8>
F;349-390/Domain: fibronectin type II repeat homology <2F9>
F;463-660/Domain: hemopexin repeat homology <PXN>
F;102,403,407,413/Binding site: zinc, catalytic (Cys, His, His) (inhibited) #status
F;403,407,413/Binding site: zinc, catalytic (His) (active) #status predicted
F;469-660/Disulfide bonds: #status predicted
F;573,642/Binding site: carbohydrate (Asn) (covalent) #status predicted
Query Match 100.0%; Score 114; DB 1; Length 660;
Best Local Similarity 100.0%; Pred. No. 8.5e-10;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 PRCGNPDVANYNFFPRPKP 19
Db 100 PRCGNPDVANYNFFPRPKP 118

RESULT 2
S70365
Gelatinase A (EC 3.4.24.24) precursor - rabbit
N;Alternate names: matrix metalloproteinase-2; type IV collagenase
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 21-Apr-1997 #sequence_revision 09-May-1997 #text_change 09-Jul-2004
C;Accession: S70365
R;Matsumoto, S.; Kato, M.; Watanabe, T.; Masuho, Y.
Biochim. Biophys. Acta 1307, 137-139, 1996
A;Title: Molecular cloning of rabbit matrix metalloproteinase-2 and its broad expression
A;Reference number: S70365; MUID:96283805; PMID:8679695
A;Accession: S70365
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-662 <MAT>
A;Cross-references: UNIPROT:P50757; UNIPARC:UPI000012F3F; EMBL:D63579; NID:G944816; PID:
C;Superfamily: gelatinase A; fibronectin type II repeat homology; hemopexin repeat homol
C;Keywords: hydrolase; metalloproteinase; zinc; zymogen
F;233-274/Domain: fibronectin type II repeat homology <2F1>
F;291-332/Domain: fibronectin type II repeat homology <2F8>
F;349-390/Domain: fibronectin type II repeat homology <2F9>
F;465-662/Domain: hemopexin repeat homology <PXN>
F;102,403,407,413/Binding site: zinc, catalytic (Cys, His, His) (inhibited) #status
F;403,407,413/Binding site: zinc, catalytic (His) (active) #status predicted
F;404/Active site: Glu #status predicted
Query Match 100.0%; Score 114; DB 2; Length 662;
Best Local Similarity 100.0%; Pred. No. 8.6e-10;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 PRCGNPDVANYNFFPRPKP 19
Db 100 PRCGNPDVANYNFFPRPKP 118
RESULT 3
A42496
Gelatinase A (EC 3.4.24.24) precursor - mouse
N;Alternate names: collagenase type IV, 72K
C;Species: Mus musculus (house mouse)
C;Date: 04-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004
C;Accession: A42496
R;Reponen, P.; Sahlberg, C.; Huhtala, P.; Hurskainen, T.; Thesleff, I.; Tryggvason, K.
J. Biol. Chem. 267, 7856-7862, 1992
A;Title: Molecular cloning of murine 72-kDa type IV collagenase and its expression during
A;Reference number: A42496; MUID:92218452; PMID:1373140
A;Accession: A42496
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-662 <REP>
A;Cross-references: UNIPROT:P33434; UNIPARC:UPI000002777E; GB:M84324; NID:gl98465; PIDN:/
A;Note: sequence extracted from NCBI backbone (NCBIN:96943, NCBIIP:96945)
C;Superfamily: gelatinase A; fibronectin type II repeat homology; hemopexin repeat homol
C;Keywords: hydrolase; metalloproteinase; zinc; zymogen
F;233-274/Domain: fibronectin type II repeat homology <2F1>
F;291-332/Domain: fibronectin type II repeat homology <2F8>
F;349-390/Domain: fibronectin type II repeat homology <2F9>
F;465-662/Domain: hemopexin repeat homology <PXN>
F;102,403,407,413/Binding site: zinc, catalytic (Cys, His, His) (inhibited) #status
F;403,407,413/Binding site: zinc, catalytic (His) (active) #status predicted
F;404/Active site: Glu #status predicted
Query Match 100.0%; Score 114; DB 2; Length 662;
Best Local Similarity 100.0%; Pred. No. 8.6e-10;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 PRCGNPDVANYNFFPRPKP 19
Db 100 PRCGNPDVANYNFFPRPKP 118
RESULT 4
S34780

gelatinase A (EC 3.4.24.24) precursor - rat
N;Alternate names: collagenase type IV
C;Species: Rattus norvegicus (Norway rat)
C;Date: 22-Nov-1993 #sequence_revision 01-Dec-1995 #text_change 09-Jul-2004
C;Accession: S34780; S32525
R;Lovett, D.H.
submitted to the EMBL Data Library, June 1993
A;Reference number: S34780
A;Accession: S34780
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-662 <LOV>
A;Cross-references: UNIPROT:P33436; UNIPARC:UPI000012P240; EMBL:X71466; NID:G311750; PID
R;Martí, H.P.; McNeill, L.; Davies, M.; Martin, J.; Lovett, D.H.
Biochem. J. 291, 441-446, 1993
A;Title: Homology cloning of rat 72 kDa type IV collagenase: cytokine and second-messenger
A;Reference number: S32525; MUID:93249363; PMID:7916617
A;Accession: S32525
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 'R', 27-662 <MAR>
A;Cross-references: UNIPARC:UPI0000175D90; EMBL:X71466
C;Superfamily: Gelatinase A; fibronectin type II repeat homology; hemopexin repeat homol
F;233-274/Domain: metalloproteinase; zinc; zymogen
F;231-332/Domain: fibronectin type II repeat homology <2F1>
F;349-390/Domain: fibronectin type II repeat homology <2F8>
F;465-662/Domain: hemopexin repeat homology <PXM>
F;102,403,407,413/Binding site: zinc, catalytic (Cys, His, His) (inhibited) #status
F;403,407,413/Binding site: zinc, catalytic (His) (active) #status predicted
F;404/Active site: Glu #status predicted
Query Match 100.0%; Score 114; DB 2; Length 662;
Best Local Similarity 100.0%; Pred. No. 8.6e-10;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 PRGNDPVANYPFRPKP 19
Db 100 PRGNDPVANYPFRPKP 118
RESULT 5
S46492
gelatinase A (EC 3.4.24.24) precursor - chicken
C;Species: Gallus gallus (chicken)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: S46492
R;Aimes, R.T.; French, D.L.; Quigley, J.P.
Biochem. J. 300, 729-736, 1994
A;Title: Cloning of a 72 kDa matrix metalloproteinase (gelatinase) from chicken embryo f
A;Reference number: S46492; MUID:94280397; PMID:8010954
A;Accession: S46492
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-663 <AIM>
A;Cross-references: UNIPROT:Q90611; UNIPARC:UPI000012P23E; EMBL:U07775; NID:G504475; PID
A;Note: in the authors' translation 205-Asp is shown after residue 201 and, consequentl
C;Superfamily: Gelatinase A; fibronectin type II repeat homology; hemopexin repeat homol
F;230-271/Domain: matrix metalloproteinase homology
F;237-216,391-443/Domain: fibronectin type II repeat homology <2F1>
F;288-329/Domain: fibronectin type II repeat homology <2F8>
F;346-387/Domain: fibronectin type II repeat homology <2F9>
F;466-663/Domain: hemopexin repeat homology <PXM>
F;99,400,404,410/Binding site: zinc, catalytic (Cys, His, His) (inhibited) #status
F;400,404,410/Binding site: zinc, catalytic (His) (active) #status predicted
F;401/Active site: Glu #status predicted
Query Match 100.0%; Score 114; DB 1; Length 663;
Best Local Similarity 100.0%; Pred. No. 8.6e-10;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 PRGNDPVANYPFRPKP 19

Db 97 PRGNDPVANYPFRPKP 115
RESULT 6
JC5743
matrix metalloproteinase (EC 3.4.24.-) precursor - pig
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 09-Dec-1997 #sequence_revision 23-Jan-1998 #text_change 09-Jul-2004
C;Accession: JC5743
R;Bartlett, J.D.; Simmer, J.P.; Xue, J.; Margolis, H.C.; Moreno, E.C.
Gene 183, 123-128, 1996
A;Title: Molecular cloning and mRNA tissue distribution of a novel matrix metalloprotein
A;Reference number: JC5743; MUID:97149288; PMID:8996096
A;Accession: JC5743
A;Molecule type: mRNA
A;Residues: 1-483 <BAR>
A;Cross-references: UNIPROT:P79287; UNIPARC:UPI000012F257; GB:U54825; NID:G1800212; PIDN
A;Experimental source: enamel organ
C;Comment: This enzyme plays a role in enamel biomineralization and development.
C;Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloprotei
C;Keywords: hydrolase; metalloproteinase; zinc
F;1-22/Domain: signal sequence #status predicted <SIG>
F;23-483/Product: matrix metalloproteinase #status predicted <MAT>
F;68-271/Domain: matrix metalloproteinase homology <MMP>
F;290-483/Domain: hemopexin repeat homology <PXM>
F;100,226,230,236/Binding site: zinc, catalytic (Cys, His, His) (inhibited) #status
F;226,230,236/Binding site: zinc, catalytic (His) #status predicted
F;227/Active site: Glu #status predicted
Query Match 71.9%; Score 82; DB 2; Length 483;
Best Local Similarity 73.7%; Pred. No. 6.1e-05;
Matches 14; Conservative 1; Mismatches 4; Indels 0; Gaps 0;
Qy 1 PRGNDPVANYPFRPKP 19
Db 98 PRGNDPVANYPFRPKP 116
RESULT 7
KCHUM
matrilysin (EC 3.4.24.23) precursor - human
N;Alternate names: matrin; matrix metalloproteinase 7 (MMP7); probable metalloproteinase
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1992 #sequence_revision 30-Sep-1992 #text_change 09-Jul-2004
C;Accession: B28816; A60539; S24324
R;Muller, D.; Quantin, B.; Gesnel, M.C.; Millon-Collard, R.; Abecassis, J.; Breathnach,
Biochem. J. 253, 187-192, 1988
A;Title: The collagenase gene family in humans consists of at least four members.
A;Reference number: A90339; MUID:88339885; PMID:2844164
A;Accession: B28816
A;Molecule type: mRNA
A;Residues: 1-267 <MUL>
A;Cross-references: UNIPROT:P09237; UNIPARC:UPI00000422BD; EMBL:X07819; NID:G35798; PIDN
R;Miyazaki, K.; Hattori, Y.; Umenishi, F.; Yasumitsu, H.; Umeda, M.
Cancer Res. 50, 7758-7764, 1990
A;Title: Purification and characterization of extracellular matrix-degrading metallopro
A;Reference number: A60539; MUID:91070531; PMID:2253219
A;Accession: A60539
A;Molecule type: protein
A;Residues: 18-35, 'X', 37-42 <MTY>
A;Cross-references: UNIPARC:UPI0000172CE6
R;Martí, H.P.; McNeill, L.; Thomas, G.; Davies, M.; Lovett, D.H.
Biochem. J. 285, 899-905, 1992
A;Title: Molecular characterization of a low-molecular-mass matrix metalloproteinase sec
A;Reference number: S24324; MUID:92359961; PMID:1497627
A;Accession: S24324
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-267 <MAR>
A;Cross-references: UNIPARC:UPI00000422BD; EMBL:Z11887; NID:G35802; PIDN:CAA77942.1; PID
C;Comment: This enzyme is similar in its activity to stromelysin and degrades various ex

s of types II, IV, IX, X, and XI.
C;Comment: Matrilysin hydrolyzes peptide bonds in plasminogen to yield a fragment with a
C;Genetics:
A;Gene: GDB:MMP7; MP5L1
A;Cross-references: GDB:125751; OMIM:178990
A;Map position: 11q21-11q22
C;Superfamily: matrilysin; matrix metalloproteinase homology
C;Keywords: calcium; extracellular matrix; fibroblast; hydrolase; metalloproteinase; zinc
F;1-17/Domain: signal sequence #status predicted <SIG>
F;18-267/Product: promatrilysin #status predicted <PRO>
F;18-94/Domain: activation peptide #status predicted <ACT>
F;55-259/Domain: matrix metalloproteinase homology <MMP>
F;85-92/Region: autoinhibitory
F;95-267/Product: matrilysin #status predicted <MAT>
F;87,214,218,224/Binding site: zinc, catalytic (Cys, His, His, His) (inhibited) #status
F;214,218,224/Binding site: zinc, catalytic (His) (active) #status predicted
F;215/Active site: Glu #status predicted

Query Match 68.4%; Score 78; DB 1; Length 267;
Best Local Similarity 68.4%; Pred. No. 0.00014;
Matches 13; Conservative 1; Mismatches 5; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRKPK 19
||||| ||||| .: |||||
Db 85 PRCGVDVAEYSLFPNSPK 103

RESULT 8
A53711
collagenase 3 (EC 3.4.24.-) - human
N;Alternate names: matrix metalloproteinase 13 (MMP13)
C;Species: Homo sapiens (man)
C;Date: 07-Jul-1995 #sequence_revision 07-Jul-1995 #text_change 09-Jul-2004
C;Accession: A53711
R;Freije, J.M.P.; Diez-Itza, I.; Balbin, M.; Sanchez, L.M.; Blasco, R.; Tollivia, J.; Lopez
J. Biol. Chem. 269, 16766-16773, 1994
A;Title: Molecular cloning and expression of collagenase-3, a novel human matrix metallo
A;Reference number: A53711; MUID:94266894; PMID:8207000
A;Accession: A53711
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-471 <FRE>
A;Cross-references: UNIPROT:P45452; UNIPARC:UPI00000422BC; GB:X75308; NID:G516385; PIDN:
C;Genetics:
A;Gene: GDB:MMP13; CLG3
A;Cross-references: GDB:373966; OMIM:600108
A;Map position: 11q22.2-11q22.3
C;Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloprotei
C;Keywords: hydrolase; matrix metalloproteinase; zinc; zymogen
F;64-267/Domain: matrix metalloproteinase homology <MMP>
F;278-471/Domain: hemopexin repeat homology <PXN>
F;96,222,226,232/Binding site: zinc, catalytic (Cys, His, His, His) (inhibited) #status
F;222,226,232/Binding site: zinc, catalytic (His) (active) #status predicted
F;223/Active site: Glu #status predicted

Query Match 63.2%; Score 72; DB 2; Length 471;
Best Local Similarity 68.4%; Pred. No. 0.0022;
Matches 13; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRKPK 19
||||| ||||| |||||
Db 94 PRCGVDVGYNVFPRTLK 112

RESULT 9
S29243
interstitial collagenase (EC 3.4.24.7) precursor - mouse
N;Alternate names: matrix metalloproteinase 1 (MMP1)
C;Species: Mus musculus (house mouse)
C;Date: 22-Nov-1993 #sequence_revision 03-Aug-1995 #text_change 09-Jul-2004
C;Accession: S29243
R;Henriet, P.; Rousseau, G.G.; Beckhout, Y.
FEBS Lett. 310, 175-178, 1992

A;Title: Cloning and sequencing of mouse collagenase cDNA. Divergence of mouse and rat c
A;Reference number: S29243; MUID:93011910; PMID:1383028
A;Accession: S29243
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-472 <HEN>
A;Cross-references: UNIPROT:P33435; UNIPARC:UPI00000213AD; EMBL:X66473; NID:G53603; PIDN:
C;Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloprotei
C;Keywords: hydrolase; metalloproteinase; zinc; zymogen
F;65-268/Domain: matrix metalloproteinase homology <MMP>
F;279-472/Domain: hemopexin repeat homology <PXN>
F;97,223,227,233/Binding site: zinc, catalytic (Cys, His, His, His) (inhibited) #status
F;223,227,233/Binding site: zinc, catalytic (His) (active) #status predicted
F;224/Active site: Glu #status predicted

Query Match 63.2%; Score 72; DB 2; Length 472;
Best Local Similarity 68.4%; Pred. No. 0.0022;
Matches 13; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRKPK 19
||||| ||||| |||||
Db 95 PRCGVDVGYNVFPRTLK 113

RESULT 10
A23685
interstitial collagenase (EC 3.4.24.7) precursor - rat (fragment)
N;Alternate names: matrix metalloproteinase 1 (MMP1); vertebrate collagenase
C;Species: Rattus norvegicus (Norway rat)
C;Date: 04-Oct-1991 #sequence_revision 04-Oct-1991 #text_change 09-Jul-2004
C;Accession: A23685
R;Quinn, C.O.; Scott, D.K.; Brinckerhoff, C.E.; Matrisian, L.M.; Jeffrey, J.J.; Partridge
J. Biol. Chem. 265, 22342-22347, 1990
A;Title: Rat collagenase. Cloning, amino acid sequence comparison, and parathyroid hormo
A;Reference number: A23685; MUID:91093077; PMID:2176215
A;Accession: A23685
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-466 <QUI>
A;Cross-references: UNIPROT:P23097; UNIPARC:UPI000012F24F; GB:M60616; GB:M36452; NID:920:
C;Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloprotei
C;Keywords: hydrolase; metalloproteinase; zinc; zymogen
F;59-262/Domain: matrix metalloproteinase homology <MMP>
F;273-466/Domain: hemopexin repeat homology <PXN>
F;91,217,221,227/Binding site: zinc, catalytic (Cys, His, His, His) (inhibited) #status
F;217,221,227/Binding site: zinc, catalytic (His) (active) #status predicted
F;218/Active site: Glu #status predicted

Query Match 60.5%; Score 69; DB 2; Length 466;
Best Local Similarity 68.4%; Pred. No. 0.0063;
Matches 13; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRKPK 19
||||| ||||| |||||
Db 89 PRCGVDVGYNVFPRTLK 107

RESULT 11
A57490
matrilysin (EC 3.4.24.23) precursor - rat
N;Alternate names: matrix metalloproteinase 7 (MMP7)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 08-Dec-1995 #sequence_revision 08-Dec-1995 #text_change 09-Jul-2004
C;Accession: A57490
R;Abramson, S.R.; Conner, G.E.; Nagase, H.; Neuhaus, I.; Woessner Jr., J.F.
J. Biol. Chem. 270, 16016-16022, 1995
A;Title: Characterization of rat uterine matrilysin and its cDNA. Relationship to human
A;Reference number: A57490; MUID:95332299; PMID:7608162
A;Accession: A57490
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-267 <ABR>
A;Cross-references: UNIPROT:P50280; UNIPARC:UPI000012F244; GB:L24374; NID:G402492; PIDN:.

C;Superfamily: matrilysin; matrix metalloproteinase homology
C;Keywords: hydrolase; metalloproteinase; zinc; zymogen
F;1-20/Domain: signal sequence #status predicted <SIG>
F;21-267/Product: matrilysin #status predicted <MAT>
F;58-262/Domain: matrix metalloproteinase homology <MMP>
F;90,217,221,227/Binding site: zinc, catalytic (Cys, His, His, His) (inhibited) #status
F;217,221,227/Binding site: zinc, catalytic (His) (active) #status predicted
F;218/Active site: Glu #status predicted

Query Match 59.6%; Score 68; DB 2; Length 267;
Best Local Similarity 57.9%; Pred. No. 0.0051;
Matches 11; Conservative 2; Mismatches 6; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNPPRPKPK 19
||||| : : : :
Db 88 PRCGVDVAFSLMNSPK 106

RESULT 12
T00643
zinc metalloproteinase homolog F316.6 - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 01-Feb-1999 #sequence_revision 01-Feb-1999 #text_change 09-Jul-2004
C;Accession: T00643
R;Fedeerspiel, N.A.; Palm, C.J.; Conway, A.B.; Kurtz, D.B.; Conway, A.R.; Au, M.; Araujo,
; Vysotskaya, V.S.; Yu, G.; Ecker, J.; Theologis, A.; Davis, R.W.
submitted to the EMBL Data Library, February 1998
A;Reference number: 214197
A;Accession: T00643
A;Status: translated from GB/EMBL/DBJ
A;Molecule type: DNA
A;Residues: 1-377 <FED>
A;Cross-references: UNIPROT:O48680; UNIPARC:UPI00000AB794; EMBL:AC002396; NID:g2749918;
A;Experimental source: cultivar Columbia
C;Genetics:
A;Gene: ATSP:F316.6
A;Map position: 1

Query Match 58.8%; Score 67; DB 2; Length 377;
Best Local Similarity 29.8%; Pred. No. 0.01;
Matches 14; Conservative 3; Mismatches 3; Indels 28; Gaps 1;

QY 1 PRCGNPDVAN-----YNFFRPKPK 19
||||| : : : :
Db 114 PRCGNPDVNGTSMHSKRKTFEVSFAGRCQRFHAKVHSFFPCEPR 160

RESULT 13
KCRTIH
stromelysin 1 (EC 3.4.24.17) precursor - rat
N;Alternate names: collagenase activating protein; matrix metalloproteinase 3 (MMP3); pr
C;Species: Rattus norvegicus (Norway rat)
C;Date: 13-Aug-1986 #sequence_revision 13-Aug-1986 #text_change 09-Jul-2004
C;Accession: A00997; PS0150; S22767
R;Matrisian, L.M.; Glaichenhaus, N.; Gesnel, M.C.; Breathnach, R.
EMBO J. 4, 1435-1440, 1985
A;Title: Epidermal growth factor and oncogenes induce transcription of the same cellular
A;Reference number: A00997; MUID:85284930; PMID:3875482
A;Accession: A00997
A;Molecule type: mRNA
A;Residues: 1-475 <M1>
A;Cross-references: UNIPROT:P03957; UNIPARC:UPI000012F242; GB:X02601; NID:g57460; PIDN:C
R;Umenishi, F.; Yasumitsu, H.; Ashida, Y.; Yamauti, J.; Umeda, M.; Miyazaki, K.
J. Biochem. 108, 537-543, 1990
A;Title: Purification and properties of extracellular matrix-degrading metallo-proteinase
A;Reference number: PS0150; MUID:91154156; PMID:1963430
A;Accession: PS0150
A;Molecule type: protein
A;Residues: 19-20,'X',22-28,'110-112','X',114-115,'X',117,'X',119,309-325 <UME>
A;Cross-references: UNIPARC:UPI0000172CE1; UNIPARC:UPI0000172CE2; UNIPARC:UPI0000172CE3
R;Breathnach, R.; Matrisian, L.M.; Gesnel, M.C.; Staub, A.; Leroy, P.
Nucleic Acids Res. 15, 1139-1151, 1987
A;Title: Sequences coding for part of oncogene-induced transin are highly conserved in a

A;Reference number: A26403; MUID:87146421; PMID:3547333
A;Contents: annotation; introns
A;Note: intron positions were determined by comparison of the previously reported cDNA s
R;Sanchez-Lopez, R.; Nicholson, R.; Gesnel, M.C.; Matrisian, L.M.; Breathnach, R.
J. Biol. Chem. 263, 11892-11899, 1988
A;Title: Structure-function relationships in the collagenase family member transin.
A;Reference number: S22767; MUID:88298869; PMID:2841336
A;Contents: annotation; active site; activation
A;Note: molecules with mutations in the autoinhibitory region showed a much increased te
R;Park, A.J.; Matrisian, L.M.; Kells, A.F.; Pearson, R.; Yuan, Z.; Navre, M.
J. Biol. Chem. 266, 1584-1590, 1991
A;Title: Mutational analysis of the transin (rat stromelysin) autoinhibitor region demon
A;Reference number: A43028; MUID:91107652; PMID:1988438
A;Contents: annotation; autoinhibitory region
A;Note: Arg-89 and Cys-92 are essential for maintaining latency
C;Comment: This enzyme degrades various extracellular matrix proteins, including fibron
C;Comment: Stromelysin 1 hydrolyzes peptide bonds in plasminogen to yield a fragment wit
C;Comment: Stromelysin 1 activates its proenzyme after cleavage(s) within the activation
C;Comment: Prostromelysin is found in glycosylated and unglycosylated forms, both of whi
C;Genetics:
A;Introns: 33/3; 115/2; 165/1; 207/1; 262/1; 310/2; 355/1; 408/2; 443/1
C;Function:
A;Description: endopeptidase preferentially hydrolyzing peptide bonds on the carboxyl si
C;Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloprotei
C;Keywords: calcium; extracellular matrix; fibroblast; glycoprotein; hydrolase; metallo
F;1-17/Domain: signal sequence #status predicted <SIG>
F;18-475/Product: prostromelysin 1 #status predicted <PRO>
F;18-97/Domain: activation peptide #status predicted <ACT>
F;58-262/Domain: matrix metalloproteinase homology <MMP>
F;88-95/Region: autoinhibitory
F;98-475/Product: stromelysin 1 #status predicted <MAT>
F;282-475/Domain: hemopexin repeat homology <PXN>
F;90,216,220,226/Binding site: zinc, catalytic (Cys, His, His, His) (inhibited) #status
F;118/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;216,220,226/Binding site: zinc, catalytic (His) (active) #status predicted
F;217/Active site: Glu #status experimental
F;288-475/Disulfide bonds: #status predicted

Query Match 57.9%; Score 66; DB 1; Length 475;
Best Local Similarity 57.9%; Pred. No. 0.019;
Matches 11; Conservative 2; Mismatches 6; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNPPRPKPK 19
||||| : : : :
Db 88 PRCGVDVGGFSTFPGPSK 106

RESULT 14
JC6505
stromelysin 2 (EC 3.4.24.22) precursor - mouse
N;Alternate names: matrix metalloproteinase 10
C;Species: Mus musculus (house mouse)
C;Date: 16-Oct-1998 #sequence_revision 16-Oct-1998 #text_change 09-Jul-2004
C;Accession: JC6505
R;Madlener, M.; Werner, S.
Gene 202, 75-81, 1997
A;Title: cDNA cloning and expression of the gene encoding murine stromelysin-2 (MMP-10).
A;Reference number: JC6505; MUID:98087420; PMID:9427548
A;Accession: JC6505
A;Molecule type: mRNA
A;Residues: 1-476 <MAD>
A;Cross-references: UNIPROT:O55123; UNIPARC:UPI0000003F45; GB:Y13185; NID:g2791311; PIDN
C;Comment: This enzyme degrades various extracellular matrix proteins, including fibron
C;Genetics:
A;Gene: MMP-10
C;Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloprotei
C;Keywords: calcium; extracellular matrix; fibroblast; glycoprotein; hydrolase; metallo
F;1-17/Domain: signal sequence #status predicted <SIG>
F;18-476/Product: prostromelysin 2 #status predicted <PRO>
F;18-99/Domain: activation peptide #status predicted <ACT>
F;60-264/Domain: matrix metalloproteinase homology <MMP>
F;90-97/Region: autoinhibitory

F;100-476/Product: stromelysin 2 #status predicted <MAT>
F;283-476/Domain: hemopexin repeat homology <PXN>
F;92,218,222,228/Binding site: zinc, catalytic (Cys, His, His, His) (inhibited) #status
F;120/Binding site: carboxylate (Asn) (covalent) #status predicted
F;218,222,228/Binding site: zinc, catalytic (His) (active) #status predicted
F;219/Active site: Glu #status predicted
F;289-476/Disulfide bonds: #status predicted

Query Match 57.9%; Score 66; DB 1; Length 476;
Best Local Similarity 57.9%; Pred. No. 0.019;
Matches 11; Conservative 2; Mismatches 6; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRPK 19
||| ||| : : ||
Db 90 PRCGPDVGGFTFGSPK 108

RESULT 15
KCHUS2
stromelysin 2 (EC 3.4.24.22) precursor [validated] - human
N;Alternate names: matrix metalloproteinase 10 (MMP10); transin-2
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1992 #sequence_revision 30-Sep-1992 #text_change 09-Jul-2004
C;Accession: A28816; A47496
R;Muller, D.; Quantin, B.; Gesnel, M.C.; Millon-Collard, R.; Abecassis, J.; Breathnach, Biochem. J. 253, 187-192, 1988
A;Title: The collagenase gene family in humans consists of at least four members.
A;Reference number: A90339; MUID:88339885; PMID:2844164
A;Accession: A28816
A;Molecule type: mRNA
A;Residues: 1-476 <MUL>
A;Cross-references: UNIPROT:P09238; UNIPARC:UPI00000422C0; EMBL:X07820; NID:G36628; PIDN
A;Note: mRNA for this protein was detected in several human tumors
R;Windsor, L.J.; Grenett, H.; Birkedal-Hansen, B.; Bodden, M.K.; Engler, J.A.; Birkedal- J. Biol. Chem. 268, 17341-17347, 1993
A;Title: Cell type-specific regulation of SL-1 and SL-2 genes. Induction of the SL-2 gene
A;Reference number: A47496; MUID:93352520; PMID:8349617
A;Accession: A47496
A;Molecule type: protein
A;Residues: 17-33 <WIN>
A;Cross-references: UNIPARC:UPI0000172CE4
A;Comment: This enzyme degrades various extracellular matrix proteins, including fibronectin
C;Genetics:
A;Gene: GDB:MMP10; STMY2
A;Cross-references: GDB:120392; OMIM:185260
A;Map position: 11q22.3-11q23
C;Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloproteinase
C;Keywords: calcium; extracellular matrix; fibroblast; glycoprotein; hydrolase; metalloproteinase
F;1-16/Domain: signal sequence #status predicted <SIG>
F;17-476/Product: prostromelysin 2 #status experimental <PRO>
F;17-98/Domain: activation peptide #status predicted <ACT>
F;59-263/Domain: matrix metalloproteinase homology <MMP>
F;89-96/Region: autoinhibitory
F;99-476/Product: stromelysin 2 #status predicted <MAT>
F;283-476/Domain: hemopexin repeat homology <PXN>
F;91,217,221,227/Binding site: zinc, catalytic (Cys, His, His, His) (inhibited) #status
F;119/Binding site: carboxylate (Asn) (covalent) #status predicted
F;217,221,227/Binding site: zinc, catalytic (His) (active) #status predicted
F;218/Active site: Glu #status predicted
F;289-476/Disulfide bonds: #status predicted

Query Match 57.9%; Score 66; DB 1; Length 476;
Best Local Similarity 57.9%; Pred. No. 0.019;
Matches 11; Conservative 3; Mismatches 5; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRPK 19
||| ||| : : ||
Db 89 PRCGPDVGGFTFGSPK 107

Search completed: February 21, 2006, 08:01:07
Job time : 30.5 secs

Canis familiaris (dog)
OC
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Canidae;
OC Canis.
OX NCBI TaxID=9615;

Run on: February 21, 2006, 18:31:04 ; Search time 190.5 Seconds
(without alignments)
70.368 Million cell updates/sec

DR EMBL; AF147750; AF167001.1; -, HUMAN.
DR HSSP; P08253; 1GXD.

DR GO; GO:0005378; C:extracellular matrix (Bambu Metazoa); IEA.
DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.

DR GO; GO:0006306; F:proteolysis and peptidolysis; IEA.
DR InterPro; IPR000794; Ketoacyl synth.

DR PFam; PF03933; Peptidase M10 N; 1.

DR PROSITE; PS00606; B KETOACYL SYNTHASE; UNKNOWN 1.

DA	FRASIER, 1	1	
FT	NON_TER	112	112
FT	NON_TER	112	112

SQ SEQUENCE 112 AA; 12110 MW; 7FD/239CAACD9617 CRC64;
 Query Match 100.0%; Score 114; DB 2; Length 112;
 Best Local Similarity 100.0%; Pred. No. 9.6e-10;

	Matches	19; COMBELLATIVE V; MISMACTONES V; INDELS
Qy	1	PRCGNPDVANYNFFPRKPK 19

DD
94 FRUGNEPUANINFFFFRAFA 112
RESULT 2

Q4KLF6_XENLA
ID 04KLF6 XENLA PRELIMINARY: PRT: 223 AA.

Q4KUF6;	AC	13-SEP-2005 (TrEMBLrel. 31, Created)
DT	DT	13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT	DT	13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE	DE	Hypothetical protein.
OS	OS	Xenopus laevis (African clawed frog).
OC	OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC	OC	Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
OC	OC	Xenopodinae; Xenopus; Xenopus.
OX	OX	NCBI_TaxID=8355;
RP	RP	[1]_TaxID=8355;
RP	RP	NUCLEOTIDE SEQUENCE.
RP	RP	TISSUE=Whole;
RC	RC	MEDLINE=22341132; PubMed=12545917; DOI=10.1002/dvdy.10174;
RA	RA	Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton
RA	RA	Richardson P.;
RT	RT	"Genetic and genomic tools for Xenopus research: The NIH Xenopus
RT	RT	initiative";
RL	RL	Dev. Dyn. 225:384-391 (2002).
RN	RN	[2]
RP	RP	NUCLEOTIDE SEQUENCE.

RA Strausberg R L, Feingold E A, Grouse L H, Derge J G
MEDLINE=22388237; PubMed=12477332; DOI=10.1073/pnas.242003093

Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh RA
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L. RA
Stapleton M., Soares M.B.,onaldo M.F., Casavant T.L., Schenke RA
Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Pranz RA
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mull RA
Bosak S.A., McGowan K.J., McKernan K.J., Malek J.A., Gunaratn RA
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hu RA
Villalon D.K., Wuzny D.M., Sodergren E.J., Lu X., Gibbs R.A. RA
Fahey J., Helton E., Kettelman M., Madan A., Rodrigues S., Sa RA

RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [3]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Whole;
RA Klein S., Gerhard D.S.;
RL Submitted (JUL-2005) to the EMBL/GenBank/DBJ databases.
DR EMBL; BC092411; AAH92411.1; -, mRNA.
RW Hypothetical protein.
SQ SEQUENCE 223 AA; 25889 MW; AB815A358ECD68F1 CRC64;
Query Match 100.0%; Score 114; DB 2; Length 223;
Best Local Similarity 100.0%; Pred. No. 2e-09; Indels 0; Gaps 0;
Matches 19; Conservative 0; Mismatches 0;
QY 1 PRCGNDPVANYNFFPRKPK 19
DB ||||||||||||||||||
96 PRCGNDPVANYNFFPRKPK 114
RESULT 3
Q7SYA5 XENLA
ID Q7SYA5 XENLA PRELIMINARY; PRT; 559 AA.
AC Q7SYA5
DT 01-OCT-2003 (TtEMBLrel. 25, Created)
DT 01-OCT-2003 (TtEMBLrel. 25, Last sequence update)
DT 01-MAR-2004 (TtEMBLrel. 26, Last annotation update)
DE Mmp2-prov protein.
OS Xenopus laevis (African clawed frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidae; Pipidae;
OC Xenopodinae; Xenopus; Xenopus.
OX NCBI_TaxID=8355;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Whole;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RX MEDLINE-22338257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullaby S.J.,
RA Bosak S.A., McSwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettman M., Madan A., Rodriguez S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [3]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Whole;
RX MEDLINE-22341132; PubMed=12454917; DOI=10.1002/dvdy.10174;
RA Klein S.D., Strausberg R.L., Wagner L., Pontius J., Clifton S.W.,
RA Richardson P.;
RT "Genetic and genomic tools for Xenopus research: The NIH Xenopus
RT initiative";
RL Dev. Dyn. 225:384-391(2002).
RN [3]

RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Whole;
RA Klein S., Strausberg R.;
RL Submitted (JUL-2003) to the EMBL/GenBank/DBJ databases.
DR EMBL; BC054947; AAH54947.1; -, mRNA.
DR HSP; P08253; LH0V.
DR MEROPS; M10.003; -.
DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
DR GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR InterPro; IPR000562; FN Type I1.
DR InterPro; IPR000585; Hemopexin.
DR InterPro; IPR006026; Peptidase M.
DR InterPro; IPR001818; Pept_M10A_M12B.
DR InterPro; IPR006025; Pept_M_Zn_BS.
DR Pfam; PF00040; fn2; 3.
DR Pfam; PF00045; Hemopexin; 2.
DR Pfam; PF00413; Peptidase M10; 1.
DR Pfam; PF03933; Peptidase_M10_N; 1.
DR PRINTS; PR00013; FNTYPEI1.
DR PRINTS; PR00138; MATRIXIN.
DR ProDom; PD000995; FN Type II; 3.
DR SMART; SM00059; FN2; 3.
DR SMART; SM00120; HX; 2.
DR SMART; SM00235; ZnMc; 1.
DR PROSITE; PS00546; CYSTEINE SWITCH; 1.
DR PROSITE; PS00023; FIBRONECTIN_2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC PROTEASE; UNKNOWN 1.
SQ SEQUENCE 559 AA; 63084 MW; F27BD8ACE59E4B52 CRC64;
Query Match 100.0%; Score 114; DB 2; Length 559;
Best Local Similarity 100.0%; Pred. No. 5.3e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 PRCGNDPVANYNFFPRKPK 19
DB ||||||||||||||||||
96 PRCGNDPVANYNFFPRKPK 114
RESULT 4
Q6GQI1 XENLA
ID Q6GQI1 XENLA PRELIMINARY; PRT; 595 AA.
AC Q6GQI1;
DT 05-JUL-2004 (TtEMBLrel. 27, Created)
DT 05-JUL-2004 (TtEMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (TtEMBLrel. 27, Last annotation update)
DE Mmp2-prov protein (Fragment).
GN Namesmp2-prov;
OS Xenopus laevis (African clawed frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidae; Pipidae;
OC Xenopodinae; Xenopus; Xenopus.
OX NCBI_TaxID=8355;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Spleen;
RX MEDLINE-22338257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullaby S.J.,
RA Bosak S.A., McSwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettman M., Madan A., Rodriguez S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [3]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Whole;
RX MEDLINE-22341132; PubMed=12454917; DOI=10.1002/dvdy.10174;
RA Klein S.D., Strausberg R.L., Wagner L., Pontius J., Clifton S.W.,
RA Richardson P.;
RT "Genetic and genomic tools for Xenopus research: The NIH Xenopus
RT initiative";
RL Dev. Dyn. 225:384-391(2002).
RN [3]

DR EMBL; AF177217; AAF67517.1; -, mRNA.
DR HSP; P08253; 1GXD.
DR MEROPS; M10_003; -.
DR Ensembl; ENSCAPG0000009421; Canis familiaris.
DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
DR GO; GO:0005508; P:proteolysis and peptidolysis; IEA.
DR InterPro; IPR000562; FN_Type_II.
DR InterPro; IPR000585; Hemopexin.
DR InterPro; IPR006026; Peptidase M.
DR InterPro; IPR001818; Pept_M10A_M12B.
DR InterPro; IPR006025; Pept_M_Zn_BS.
DR Pfam; PF00040; fn2; 3.
DR Pfam; PF00045; Hemopexin; 4.
DR Pfam; PF00413; Peptidase M10; 1.
DR Pfam; PF03933; Peptidase M10_N; 1.
DR PRINTS; PR00013; ENTPEP1.
DR PRINTS; PR00138; MATRIXIN.
DR ProDom; PD000995; FN_Type_II; 3.
DR SMART; SM00059; FN2; 3.
DR SMART; SM00120; HX; 4.
DR SMART; SM00235; ZnMC; 1.
DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
DR PROSITE; PS00023; FIBRONECTIN_2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC_PROTEASE; UNKNOWN_1.
FT NON TER 1
SQ SEQUENCE 632 AA; 70991 MW; D8AE895497E129F3 CRC64;

Query Match 100.0%; Score 114; DB 2; Length 632;
Best Local Similarity 100.0%; Pred. No. 6.1e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGPNPDVANYNFFPRKPK 19
|||||
Db 72 PRGPNPDVANYNFFPRKPK 90

RESULT 6
ID Q6U7G9_MELGA
Q6U7G9_MELGA PRELIMINARY; PRT; 654 AA.
AC Q6U7G9;
DT 05-JUL-2004 (TrEMBLrel. 27, Created)
DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE Gelatinase A.
OS Meleagris gallopavo (Common turkey).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Meleagridi;
OX NCBI_TaxID=9103;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RL Monsonego Ornan E.; Tong A.;
RL Submitted (AUG-2003) to the EMBL/GenBank/DBJ databases.
RE EMBL; AY376899; AAK98997.1; -, mRNA.
DR HSP; P08254; 1B3D.
DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
DR GO; GO:0005508; P:proteolysis and peptidolysis; IEA.
DR InterPro; IPR000562; FN_Type_II.
DR InterPro; IPR000585; Hemopexin.
DR InterPro; IPR006026; Peptidase M.
DR InterPro; IPR001818; Pept_M10A_M12B.
DR InterPro; IPR006025; Pept_M_Zn_BS.
DR Pfam; PF00040; fn2; 3.
DR Pfam; PF00045; Hemopexin; 3.
DR Pfam; PF00413; Peptidase M10; 1.
DR Pfam; PF03933; Peptidase M10_N; 1.
DR PRINTS; PR00013; ENTPEP1.
DR PRINTS; PR00138; MATRIXIN.
DR ProDom; PD000995; FN_Type_II; 3.
DR SMART; SM00059; FN2; 3.
DR SMART; SM00120; HX; 4.

DR PROSITE; PS00142; ZINC_PROTEASE; UNKNOWN 1.
 SQ SEQUENCE 656 AA; 74272 MW; 50C28A99C427F51D CRC64;

Query Match 100.08; Score 114; DB 2; Length 656;
 Best Local Similarity 100.08; Pred. No. 6.3e-09;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 PRCGNPDVANTNFFPRKPK 19
 |||||
 Db 96 PRCGNPDVANTNFFPRKPK 114

RESULT 9
 MWP2 HUMAN STANDARD; PRT; 660 AA.

ID MWP2 HUMAN STANDARD; PRT; 660 AA.
 AC P08253;
 DT 01-AUG-1988 (Rel. 08, Created)
 DT 01-FEB-1991 (Rel. 17, last sequence update)
 DT 13-SEP-2005 (Rel. 48, last annotation update)
 DE 72 kDa type IV collagenase precursor (EC 3.4.24.24) (72 kDa
 gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A) (TBE-1).
 GN Name=MMP2; Synonyms=CLG4A;
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
 OC Homo.
 OX NCBI_TaxID=9606;

RN [1]
 RP NUCLEOTIDE SEQUENCE OF 19-660, AND PARTIAL PROTEIN SEQUENCE.
 RX MEDLINE=88198218; PubMed=2834383;
 RA Collier I.E., Wilhelm S.M., Eisen A.Z., Marmer B.L., Grant G.A.,
 RA Seltzer J.L., Kronberger A., He C., Bauer E.A., Goldberg G.I.;
 RT "H-ras oncogene-transformed human bronchial epithelial cells (TBE-1)
 RT secrete a single metalloproteinase capable of degrading basement
 RT membrane collagen.";
 RL J. Biol. Chem. 263:6579-6587(1988).
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=91236162; PubMed=1851724;
 RA Huhtala P., Chow L.T., Tryggvason K.;
 RA "On the structure and chromosome location of the 72- and 92-kDa human
 RT type IV collagenase genes.";
 RL Genomics 9:429-434(1991).
 RN [3]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=90293047; PubMed=2162831;
 RA Huhtala P., Chow L.T., Tryggvason K.;
 RA "Structure of the human type IV collagenase gene.";
 RL J. Biol. Chem. 265:11077-11082(1990).
 RN [4]
 RP NUCLEOTIDE SEQUENCE [GENOMIC DNA], AND VARIANTS VAL-447 AND LEU-621.
 RA Livingston R.J., Rieder M.J., Chung M.-W., Ritchie T.K., Olson A.N.,
 RA Nguyen C.P., Nguyen D.A., Poel C.L., Chambers S.W., Schackwitz W.S.,
 RA Sherwood J.K., Sherwood A.M., Leithauer B.J., Nickerson D.A.;
 RT "NIH-SNPs, environmental genome project, NIHES ES15478, Department
 RT of Genome Sciences, Seattle, WA (URL: http://egp.gs.washington.edu).";
 RL Submitted (AUG-2004) to the EMBL/GenBank/DBJ databases.
 RN [5]
 RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
 RC TISSUE=Brain;
 RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
 RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Haie H.,
 RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.J., Udén T.B., Toshiyuki S., Carninci P., Frange C.,
 RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullany S.J.,
 RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
 RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

FAHEY J., Helton E., Kettman M., Madan A., Rodrigues S., Sanchez A.,
 Whiting M., Madan A., Young A.C., Shevchenko V., Bouffard G.G.,
 Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
 Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.B.,
 Sutterer A., Schein J.E., Jones S.J.M., Marra M.A.;
 "Generation and initial analysis of more than 15,000 full-length human
 and mouse cDNA sequences.";
 Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 RN [6]
 RP NUCLEOTIDE SEQUENCE OF 1-51.
 RX MEDLINE=90228972; PubMed=2158484;
 RA Huhtala P., Eddy R.L., Fan Y.S., Byers M.G., Shows T.B.,
 RA Tryggvason K.;
 RT "Completion of the primary structure of the human type IV collagenase
 RT preproenzyme and assignment of the gene (CLG4) to the q21 region of
 RT chromosome 16.";
 RL Genomics 6:554-559(1990).
 RN [7]
 RP ENZYME REGULATION.
 RX PubMed=11179305; DOI=10.1128/IAI.69.3.1402-1408.2001;
 RA Gusman H., Travis J., Helmerhorst E.J., Potempa J., Troxler R.F.,
 RA Oppenheim F.G.;
 RT "Salivary histatin 5 is an inhibitor of both host and bacterial
 RT enzymes implicated in periodontal disease.";
 RL Infect. Immun. 69:1402-1408(2001).
 RN [8]
 RP PROCESSING OF KISS1.
 RX MEDLINE=22761370; PubMed=12879005; DOI=10.1038/sj.ons.1206542;
 RA Takino T., Koshikawa N., Miyamori H., Tanaka M., Sasaki T., Okada Y.,
 RA Seiki M., Sato H.;
 RT "Cleavage of metastasis suppressor gene product KISS-1
 RT protein/metastin by matrix metalloproteinases.";
 RL Oncogene 22:4617-4626(2003).
 RN [9]
 RP X-RAY CRYSTALLOGRAPHY (2.15 ANGSTROMS) OF 443-660.
 RX MEDLINE=96069777; PubMed=7583664;
 RA Libson A.M., Gittis A.G., Collier I.E., Marmer B.L., Goldberg G.I.,
 RA Lattman E.E.;
 RT "Crystal structure of the haemopexin-like C-terminal domain of
 RT gelatinase A.";
 RL Nat. Struct. Biol. 2:938-942(1995).
 RN [10]
 RP X-RAY CRYSTALLOGRAPHY (2.6 ANGSTROMS) OF 458-660.
 RX MEDLINE=96140723; PubMed=8549817; DOI=10.1016/0014-5793(95)01435-7;
 RA Gohlke U., Gomis-Rueth F.-X., Crabbe T., Murphy G., Docherty A.J.,
 RA Bode W.;
 RT "The C-terminal (haemopexin-like) domain structure of human gelatinase
 RT A (MMP2): structural implications for its function.";
 RL FEBS Lett. 378:126-130(1996).
 CC -/- FUNCTION: In addition to gelatin and collagens, it cleaves KISS1
 CC at a Gly-|-Leu bond.
 CC -/- CATALYTIC ACTIVITY: Cleavage of gelatin type I and collagen types
 CC IV, V, VII, X. Cleaves the collagen-like sequence Pro-Gln-Gly-|-
 CC Ile-Ala-Gly-Gln.
 CC -/- COFACTOR: Binds 4 calcium ions per subunit.
 CC -/- COFACTOR: Binds 2 zinc ions per subunit.
 CC -/- ENZYME REGULATION: Inhibited by histatin-3 1/24 (histatin-5).
 CC -/- SUBUNIT: Ligand for integrin alpha-V/beta-3.
 CC -/- TISSUE SPECIFICITY: Produced by normal skin fibroblasts.
 CC -/- PTM: The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-
 CC MMP3).
 CC -/- SIMILARITY: Belongs to the peptidase M10A family.
 CC -/- SIMILARITY: Contains 3 fibronectin type-II domains.
 CC -/- SIMILARITY: Contains 1 hemopexin-like domain.
 CC -----
 CC This Swiss-Prot entry is copyright. It is produced through a collaboration
 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
 CC the European Bioinformatics Institute. There are no restrictions on its
 CC use as long as its content is in no way modified and this statement is not
 CC removed.
 CC -----
 CC EMBL; J03210; AAA35701.1; -; mRNA.

DR EMBL; M33789; AAA52027.1; -; Genomic_DNA.
 DR EMBL; M55593; AAA52028.1; -; Genomic_DNA.
 DR EMBL; M58552; AAA52028.1; JOINED; Genomic_DNA.
 DR EMBL; M55582; AAA52028.1; JOINED; Genomic_DNA.
 DR EMBL; M55583; AAA52028.1; JOINED; Genomic_DNA.
 DR EMBL; M55584; AAA52028.1; JOINED; Genomic_DNA.
 DR EMBL; M55585; AAA52028.1; JOINED; Genomic_DNA.
 DR EMBL; M55586; AAA52028.1; JOINED; Genomic_DNA.
 DR EMBL; M55587; AAA52028.1; JOINED; Genomic_DNA.
 DR EMBL; M55588; AAA52028.1; JOINED; Genomic_DNA.
 DR EMBL; M55589; AAA52028.1; JOINED; Genomic_DNA.
 DR EMBL; M55590; AAA52028.1; JOINED; Genomic_DNA.
 DR EMBL; M55591; AAA52028.1; JOINED; Genomic_DNA.
 DR EMBL; M55592; AAA52028.1; JOINED; Genomic_DNA.
 DR EMBL; AY738117; AAU0089.1; -; mRNA.
 DR EMBL; BC002576; AAH02576.1; -; mRNA.
 DR PIR; A28153; A28153.
 DR PDB; 1CK7; X-ray; A=30-660.
 DR PDB; 1CXW; NMR; A=278-336.
 DR PDB; 1EAK; X-ray; A/B/C/D=32-452.
 DR PDB; 1GEN; X-ray; @=443-660.
 DR PDB; 1GXD; X-ray; A/B=30-660.
 DR PDB; 1HOV; NMR; A=110-214.
 DR PDB; 1J7M; NMR; A=337-394.
 DR PDB; 1KSO; NMR; A=223-282.
 DR PDB; 1QIB; X-ray; A=115-216.
 DR PDB; 1RTG; X-ray; @=451-660.
 DR MEROPS; M10.003; -.
 DR Ensembl; ENSG00000087245; Homo sapiens.
 DR HGNC; HGNC:7166; MMP2.
 DR H-InvDB; HIX0013041; -.
 DR MIM; 120360; -; C:extracellular space; TAS.
 DR GO; GO:0005615; -; TAS.
 DR GO; GO:0004228; F:gelatinase A activity; TAS.
 DR GO; GO:0008270; F:zinc ion binding; TAS.
 DR GO; GO:0006508; P:proteolysis and peptidolysis; TAS.
 DR InterPro; IPR000562; FN_type2_col_bd.
 DR InterPro; IPR000585; Hemopexin.
 DR InterPro; IPR001818; Pept_M10A_M12B.
 DR InterPro; IPR006025; Pept_M_Zn_BS.
 DR InterPro; IPR006026; Peptidase_M.
 DR Pfam; PF00040; fn2; 3.
 DR Pfam; PF00045; Hemopexin; 4.
 DR Pfam; PF00413; Peptidase_M10; 1.
 DR Pfam; PF03933; Peptidase_M10_N; 1.
 DR PRINTS; PR00013; FNTYPEII.
 DR PRINTS; PR00138; MATRIXIN.
 DR ProDom; PD000995; FN_Type_II; 3.
 DR SMART; SM00059; FN2_3.
 DR SMART; SM00120; HX; 4.
 DR SMART; SM00235; ZnMc; 1.
 DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
 DR PROSITE; PS00023; FN2_1; 3.
 DR PROSITE; PS1092; FN2_2; 3.
 DR PROSITE; PS00024; HEMOPEXIN; 1.
 DR PROSITE; PS00142; ZINC_PROTEASE; 1.
 DR 3D-structure; Calcium; Collagen degradation;
 DR Direct protein sequencing; Extracellular matrix; Glycoprotein;
 DR Hydrolase; Metal-binding; Metalloprotease; Polymorphism; Protease;
 DR Repeat; Signal; Zinc; Zymogen.
 FT SIGNAL 29 Potential.
 FT PROPEP 30 109 Activation peptide.
 FT CHAIN 110 660 72 kDa type IV collagenase.
 FT DOMAIN 228 276 Fibronectin type-II 1.
 FT DOMAIN 286 334 Fibronectin type-II 2.
 FT DOMAIN 344 392 Fibronectin type-II 3.
 FT DOMAIN 466 660 Hemopexin-like 1.
 FT REGION 110 221 Collagenase-like 1.

Query Match 100.0%; Score 114; DB 1; Length 660;
 Best Local Similarity 100.0%; Pred. No. 6.3e-09;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRKPK 19
 DB 100 PRCGNPDVANYNFFPRKPK 118
 RESULT 10
 Q5IY21_TUPGB PRELIMINARY; PRT; 660 AA.
 ID Q5IY21; Q5IY21_TUPGB PRELIMINARY;
 AC Q5IY21;
 DT 10-MAY-2005 (TrEMBLrel. 30, Created)
 DT 10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
 DE Matrix metalloproteinase 2.
 OS Tupaia glis belangeri (Common tree shrew).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Scandentia; Tupaiidae; Tupaia.
 ON NCBI_TaxID=37347;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX PubMed=15621657; DOI=10.1080/10425170400012925;
 RA Kenning M.S., Gentile A., McBrien N.A.;
 RT "Expression and cDNA sequence of matrix metalloproteinase-2 (MMP-2) in
 a mammalian model of human disease processes: Tupaia belangeri.";
 RL DNA Seq. 15:332-337(2004).
 DR EMBL; AY600958; AAT44903.1; -; mRNA.
 DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
 DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
 DR GO; GO:0008270; F:zinc ion binding; IEA.
 DR GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
 DR InterPro; IPR000562; FN_type2_col_bd.
 DR InterPro; IPR000585; Hemopexin.
 DR InterPro; IPR001818; Pept_M10A_M12B.
 DR InterPro; IPR006025; Pept_M_Zn_BS.
 DR InterPro; IPR006026; Peptidase_M.
 DR Pfam; PF00040; fn2; 3.
 DR Pfam; PF00045; Hemopexin; 4.
 DR Pfam; PF00413; Peptidase_M10; 1.
 DR Pfam; PF03933; Peptidase_M10_N; 1.
 DR PRINTS; PR00013; FNTYPEII.
 DR PRINTS; PR00138; MATRIXIN.
 DR ProDom; PD000995; FN_Type_II; 3.
 DR SMART; SM00059; FN2_3.
 DR SMART; SM00120; HX; 4.
 DR SMART; SM00235; ZnMc; 1.
 DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
 DR PROSITE; PS00023; FN2_1; 2.
 DR PROSITE; PS1092; FN2_2; 3.
 DR PROSITE; PS00024; HEMOPEXIN; 1.
 DR PROSITE; PS00142; ZINC_PROTEASE; 1.
 DR Calcium; Hydrolase; Metal-binding; Metalloprotease; Protease; Zinc.
 SQ SEQUENCE 660 AA; 73871 MW; FC7BB8481091CSED CRC64;
 Query Match 100.0%; Score 114; DB 2; Length 660;
 Best Local Similarity 100.0%; Pred. No. 6.3e-09;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRCGNPDVANYNFFPRKPK 19
 DB 100 PRCGNPDVANYNFFPRKPK 118
 RESULT 11
 Q95JAA_PIG PRELIMINARY; PRT; 661 AA.
 ID Q95JAA_PIG PRELIMINARY;
 AC Q95JAA;
 DT 01-DEC-2001 (TrEMBLrel. 19, Created)
 DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
 DE Matrix metalloproteinase 2.
 OS Sus scrofa (Pig).
 ON Name=MMP-2;
 GN Sus scrofa (Pig).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;

OC SUS.
 OX NCBI_TaxID=9823;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC TISSUE=Tooth enamel organ;
 RX MEDLINE=21480581; PubMed=11597028;
 RA Caron C., Xue J., Sun X., Simmer J.P., Bartlett J.D.;
 RT "Gelatinsae A (MMP-2) in developing tooth tissues and amelogenin
 hydrolysis";
 RL J. Dent. Res. 80:1660-1664 (2001).
 DR EMBL; AF295805; AAK971133.1; -; mRNA.
 DR HESP; P08253; 1GX.
 DR MEROPS; M10.003; -.
 DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
 DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
 DR GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
 DR InterPro; IPR000562; FN_Type_II.
 DR InterPro; IPR000585; Hemopexin.
 DR InterPro; IPR006026; Peptidase M.
 DR InterPro; IPR001818; Pept M10A M12B.
 DR InterPro; IPR006025; Pept_M_Zn_BS.
 DR Pfam; PF00040; fn2; 3.
 DR Pfam; PF00045; Hemopexin; 4.
 DR Pfam; PF00413; Peptidase M10; 1.
 DR PRINTS; PR00133; Peptidase M10_N; 1.
 DR PRINTS; PR00138; FNTYPEII.
 DR ProDom; PD000995; FN_Type_II; 3.
 DR SMART; SM00059; FN2; 3.
 DR SMART; SM00120; HX; 4.
 DR SMART; SM00235; ZnMc; 1.
 DR PROSITE; PS00546; CYSTEINE SWITCH; 1.
 DR PROSITE; PS00023; FIBRONECTIN 2; 3.
 DR PROSITE; PS00024; HEMOPEXIN; 1.
 DR PROSITE; PS00142; ZINC_PROTEASE; UNKNOWN_1.
 KW Metalloprotease; Protease.
 SQ SEQUENCE 661 AA; 73776 MW; 41CD448BD72D2CC2 CRC64;

Query Match 100.0%; Score 114; DB 2; Length 661;
 Best Local Similarity 100.0%; Pred. No. 6.3e-09;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGNDPVANVNFPRKPK 19
 Db 101 PRGNDPVANVNFPRKPK 119
 |||||

RESULT 12
 Q9GLE5 BOVIN
 ID Q9GLE5 BOVIN PRELIMINARY; PRT; 661 AA.
 AC Q9GLE5;
 DT 01-MAR-2001 (TrEMBLrel. 16, Created)
 DT 01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
 DE Matrix metalloprotease 2.
 OS Bos taurus (Bovine).
 OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
 OC Pecora; Bovidae; Bovinae; Bos.
 OX NCBI_TaxID=9913;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RA Yan L., Zhang B., Teang P., Fang J., Yu Y., Ingber D.E., Moses M.A.;
 RL Submitted (JUL-2000) to the EMBL/GenBank/DBJ databases.
 DR EMBL; AF290428; AAG28169.1; -; mRNA.
 DR HESP; P08253; 1GX.
 DR MEROPS; M10.003; -.
 DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
 DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
 DR GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
 DR InterPro; IPR000562; FN_Type_II.
 DR InterPro; IPR000585; Hemopexin.
 DR InterPro; IPR006026; Peptidase M.
 DR InterPro; IPR001818; Pept M10A M12B.

DR InterPro; IPR006025; Pept_M_Zn_BS.
 DR Pfam; PF00040; fn2; 3.
 DR Pfam; PF00045; Hemopexin; 4.
 DR Pfam; PF00413; Peptidase M10; 1.
 DR PRINTS; PR00133; Peptidase M10_N; 1.
 DR PRINTS; PR00138; FNTYPEII.
 DR ProDom; PD000995; FN_Type_II; 3.
 DR SMART; SM00059; FN2; 3.
 DR SMART; SM00120; HX; 4.
 DR SMART; SM00235; ZnMc; 1.
 DR PROSITE; PS00546; CYSTEINE SWITCH; 1.
 DR PROSITE; PS00023; FIBRONECTIN 2; 3.
 DR PROSITE; PS00024; HEMOPEXIN; 1.
 DR PROSITE; PS00142; ZINC_PROTEASE; UNKNOWN_1.
 KW Metalloprotease; Protease.
 SQ SEQUENCE 661 AA; 73776 MW; 90545F7645E5F84D CRC64;

Query Match 100.0%; Score 114; DB 2; Length 661;
 Best Local Similarity 100.0%; Pred. No. 6.3e-09;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGNDPVANVNFPRKPK 19
 Db 101 PRGNDPVANVNFPRKPK 119
 |||||

RESULT 13
 MMP2 MOUSE
 ID MMP2 MOUSE STANDARD; PRT; 662 AA.
 AC P33434;
 DT 01-FEB-1994 (Rel. 28, Created)
 DT 01-FEB-1994 (Rel. 28, Last sequence update)
 DT 13-SEP-2005 (Rel. 48, Last annotation update)
 DE 72 kDa type IV collagenase precursor (EC 3.4.24.24) (72 kDa
 gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A).
 GN Name=Mmp2;
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
 OC Muridae; Murinae; Mus.
 OX NCBI_TaxID=10090;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=92218452; PubMed=1373140;
 RA Reponen P., Sahlborg C., Huhtala P., Hurskainen T., Thesleff I.,
 RA Tryggvason K.;
 RT "Molecular cloning of murine 72-kDa type IV collagenase and its
 expression during mouse development.";
 RL J. Biol. Chem. 267:7856-7862 (1992).
 RN [2]
 RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
 RC STRAIN=C57BL/6; TISSUE=Brain;
 RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
 RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heide F.,
 RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.J., Udwin T.B., Toshiyuki S., Carninci P., Prange C.,
 RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullaby S.J.,
 RA Bosak S.A., McSwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
 RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Fahey J., Helton E., Kettelman M., Madan A., Rodrigues S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
 RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalls D.E.,
 RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 and mouse cDNA sequences.";

Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 [3].
 DEVELOPMENTAL STAGE.
 TISSUE=Embryo;
 PubMed=2744464;
 RA Brenner C.A., Adler R.R., Rappolee D.A., Pedersen R.A., Werb Z.;
 RT "Genes for extracellular-matrix-degrading metalloproteinases and their
 inhibitor, TIMP, are expressed during early mammalian development.";
 RL Genes Dev. 3:848-859(1989).
 CC -1- CATALYTIC ACTIVITY: Cleavage of gelatin type I and collagen types
 IV, V, VII, X. Cleaves the collagen-like sequence Pro-Gln-Gly-|-
 Ile-Ala-Gly-Gln.
 CC -1- COFACTOR: Binds 4 calcium ions per subunit (By similarity).
 CC -1- COFACTOR: Binds 2 zinc ions per subunit (By similarity).
 CC -1- SUBUNIT: Ligand for integrin alpha-V/beta-3.
 CC -1- DEVELOPMENTAL STAGE: Present in unfertilized eggs and at the
 zygote and cleavage stages. Levels increase at the blastocyst
 stage and with endoderm differentiation.
 CC -1- PTM: The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-
 MMP3) (By similarity).
 CC -1- SIMILARITY: Belongs to the peptidase M10A family.
 CC -1- SIMILARITY: Contains 3 fibronectin type-II domains.
 CC -1- SIMILARITY: Contains 1 hemopexin-like domain.

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 the European Bioinformatics Institute. There are no restrictions on its
 use as long as its content is in no way modified and this statement is not
 removed.

 DR EMBL; M84324; AAA39338.1; -; mRNA.
 DR EMBL; BC070430; AAH70430.1; -; mRNA.
 DR PIR; A42496; A42496.
 DR HSSP; P08253; 1RTG.
 DR MEROPS; M10.003; -.
 DR Ensembl; ENSMUSG000000031740; Mus musculus.
 DR MGI; MGI:17009; Mmp2.
 DR GO; GO:0005615; C:extracellular space; TAS.
 DR InterPro; IPR000562; FN_type2_col_bd.
 DR InterPro; IPR000585; Hemopexin.
 DR InterPro; IPR001818; Pept M10A_M12B.
 DR InterPro; IPR006025; Pept M_Zn_BS.
 DR InterPro; IPR006026; Peptidase_M.
 DR Pfam; PF00040; fn2; 3.
 DR Pfam; PF00045; Hemopexin; 4.
 DR Pfam; PF00413; Peptidase M10; 1.
 DR Pfam; PF03933; Peptidase M10_N; 1.
 DR PRINTS; PR00013; FNTYPEII.
 DR PRINTS; PR00138; MATRIKIN.
 DR ProDom; PD000995; FN_Type_II; 3.
 DR SMART; SM00059; FN2; 3.
 DR SMART; SM00120; HX; 4.
 DR SMART; SM00235; ZnMc; 1.
 DR PROSITE; PS00546; CYSTEINE SWITCH; 1.
 DR PROSITE; PS00023; FN2_1; 3.
 DR PROSITE; PS1092; FN2_2; 3.
 DR PROSITE; PS00024; HEMOPEXIN; 1.
 DR PROSITE; PS00142; ZINC PROTEASE; 1.
 KW Calcium; Collagen degradation; Extracellular matrix; Glycoprotein;
 KW Hydrolase; Metal-binding; Metalloprotease; Protease; Repeat; Signal;
 KW Zinc; Zymogen.
 FT SIGNAL 1 29 Potential.
 FT PROPEP 30 109 Activation peptide.
 FT CHAIN 110 662 72 kDa type IV collagenase.
 FT DOMAIN 228 276 Fibronectin type-II 1.
 FT DOMAIN 286 334 Fibronectin type-II 2.
 FT DOMAIN 344 392 Fibronectin type-II 3.
 FT DOMAIN 468 662 Hemopexin-like.
 FT REGION 110 221 Collagenase-like 1.
 FT REGION 222 396 Collagen-binding.
 FT REGION 397 467 Collagenase-like 2.
 FT ACT SITE 404 404 By similarity.
 FT METAL 134 134 Calcium 1 (By similarity).

FT METAL 168 168 Calcium 2 (By similarity).
 FT METAL 178 178 Zinc 1 (By similarity).
 FT METAL 180 180 Zinc 1 (By similarity).
 FT METAL 185 185 Calcium 3 (By similarity).
 FT METAL 186 186 Calcium 3 (via carbonyl oxygen) (By
 similarity).
 FT METAL 193 193 Zinc 1 (By similarity).
 FT METAL 200 200 Calcium 2 (via carbonyl oxygen) (By
 similarity).
 FT METAL 202 202 Calcium 2 (via carbonyl oxygen) (By
 similarity).
 FT METAL 204 204 Calcium 2 (By similarity).
 FT METAL 206 206 Zinc 1 (By similarity).
 FT METAL 208 208 Calcium 3 (By similarity).
 FT METAL 209 209 Calcium 1 (By similarity).
 FT METAL 211 211 Calcium 3 (By similarity).
 FT METAL 403 403 Zinc 2 (catalytic) (By similarity).
 FT METAL 407 407 Zinc 2 (catalytic) (By similarity).
 FT METAL 413 413 Zinc 2 (catalytic) (By similarity).
 FT METAL 478 478 Calcium 4 (via carbonyl oxygen) (By
 similarity).
 FT METAL 523 523 Calcium 4 (via carbonyl oxygen) (By
 similarity).
 FT METAL 571 571 Calcium 4 (via carbonyl oxygen) (By
 similarity).
 FT METAL 620 620 Calcium 4 (via carbonyl oxygen) (By
 similarity).
 FT SITE 102 102 Cysteine switch (Potential).
 FT CARBOHYD 575 575 N-linked (GlcNAc. .) (Potential).
 FT CARBOHYD 644 644 N-linked (GlcNAc. .) (Potential).
 FT DISULFID 471 662 By similarity.
 SQ SEQUENCE 662 AA; 74102 MW; C630A7DBDB272F02 CRC64;
 Query Match 100.0%; Score 114; DB 1; Length 662;
 Best Local Similarity 100.0%; Pred. No. 6.4e-09;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRCGNPDVANYNFFPRKPK 19
 DB 100 PRCGNPDVANYNFFPRKPK 118
 RESULT 14
 MMP2_RABIT STANDARD; PRT; 662 AA.
 AC P50757;
 DT 01-OCT-1996 (Rel. 34, Created)
 DT 01-OCT-1996 (Rel. 34, Last sequence update)
 DT 13-SEP-2005 (Rel. 48, Last annotation update)
 DE 72 kDa type IV collagenase precursor (EC 3.4.24.24) (72 kDa
 gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A).
 GN Name=MMP2;
 OS Oryctolagus cuniculus (Rabbit).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Lagomorpha; Leporidae;
 OC Oryctolagus.
 OX NCBI_TaxID=9986;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=Japanese white; TISSUE=Articular joint;
 RX MEDLINE=96283805; PubMed=8679695; DOI=10.1016/0167-4781(96)00050-4;
 RA Matsumoto S., Kato M., Watanabe T., Masuh Y.;
 RT "Molecular cloning of rabbit matrix metalloproteinase-2 and its broad
 expression at several tissues.";
 RL Biochim. Biophys. Acta 1307:137-139(1996).
 CC -1- CATALYTIC ACTIVITY: Cleavage of gelatin type I and collagen types
 IV, V, VII, X. Cleaves the collagen-like sequence Pro-Gln-Gly-|-
 Ile-Ala-Gly-Gln.
 CC -1- COFACTOR: Binds 4 calcium ions per subunit (By similarity).
 CC -1- COFACTOR: Binds 2 zinc ions per subunit (By similarity).
 CC -1- SUBUNIT: Ligand for integrin alpha-V/beta-3.
 CC -1- PTM: The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-
 MMP3) (By similarity).

DR InterPro; IPR000562; FN_type2_col_bd.
 DR InterPro; IPR000585; Hemopexin.
 DR InterPro; IPR001818; Pept M10A_M12B.
 DR InterPro; IPR006025; Pept M Zn BS.
 DR InterPro; IPR006026; Peptidase_M.
 DR Pfam; PF00040; fn2; 3.
 DR Pfam; PF00045; Hemopexin; 4.
 DR Pfam; PF00413; Peptidase_M10; 1.
 DR Pfam; PF03933; Peptidase_M10_N; 1.
 DR PRINTS; PR00133; ENTYPETII.
 DR PRINTS; PR00138; MATRXIN.
 DR ProDom; PD000995; FN_Type_II; 3.
 DR SMART; SM00059; FN2; 3.
 DR SMART; SM00120; HX; 4.
 DR SMART; SM00235; ZnMc; 1.
 DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
 DR PROSITE; PS00023; FN2; 1; 3.
 DR PROSITE; PS1092; FN2_2; 3.
 DR PROSITE; PS00024; HEMOPEXIN; 1.
 DR PROSITE; PS00142; ZINC_PROTEASE; 1.
 KW Calcium; Collagen degradation; Extracellular matrix; Glycoprotein;
 KW Hydrolase; Metal-binding; Metalloprotease; Protease; Repeat; Signal;
 KW Zinc; Zymogen.
 FT SIGNAL 1 29 Potential.
 FT PROPEP 30 109 Activation peptide.
 FT CHAIN 110 662 72 kDa type IV collagenase.
 FT DOMAIN 286 276 Fibronectin type-II 1.
 FT DOMAIN 288 334 Fibronectin type-II 2.
 FT DOMAIN 344 392 Fibronectin type-II 3.
 FT DOMAIN 468 662 Hemopexin-like.
 FT REGION 110 221 Collagenase-like 1.
 FT REGION 222 396 Collagen-binding.
 FT REGION 397 467 Collagenase-like 2.
 FT ACT_SITE 404 404 By similarity.
 FT METAL 134 134 Calcium 1 (By similarity).
 FT METAL 168 168 Calcium 2 (By similarity).
 FT METAL 178 178 Zinc 1 (By similarity).
 FT METAL 180 180 Zinc 1 (By similarity).
 FT METAL 185 185 Calcium 3 (By similarity).
 FT METAL 186 186 Calcium 3 (via carbonyl oxygen) (By similarity).
 FT METAL 193 193 Zinc 1 (By similarity).
 FT METAL 200 200 Calcium 2 (via carbonyl oxygen) (By similarity).
 FT METAL 202 202 Calcium 2 (via carbonyl oxygen) (By similarity).
 FT METAL 204 204 Calcium 2 (By similarity).
 FT METAL 206 206 Zinc 1 (By similarity).
 FT METAL 208 208 Calcium 3 (By similarity).
 FT METAL 209 209 Calcium 1 (By similarity).
 FT METAL 211 211 Calcium 3 (By similarity).
 FT METAL 403 403 Zinc 2 (catalytic) (By similarity).
 FT METAL 407 407 Zinc 2 (catalytic) (By similarity).
 FT METAL 413 413 Zinc 2 (catalytic) (By similarity).
 FT METAL 478 478 Calcium 4 (via carbonyl oxygen) (By similarity).
 FT METAL 523 523 Calcium 4 (via carbonyl oxygen) (By similarity).
 FT METAL 571 571 Calcium 4 (via carbonyl oxygen) (By similarity).
 FT METAL 620 620 Calcium 4 (via carbonyl oxygen) (By similarity).
 FT SITE 102 102 Cysteine switch (Potential).
 FT CARBOHYD 575 575 N-linked (GLCNAC. . .) (Potential).
 FT CARBOHYD 644 644 N-linked (GLCNAC. . .) (Potential).
 FT DISULFID 471 662 By similarity.
 FT CONFLICT 42 42 A -> S (in Ref. 2).
 FT CONFLICT 286 286 A -> G (in Ref. 2).
 FT CONFLICT 369 369 N -> S (in Ref. 2).
 FT CONFLICT 435 435 H -> S (in Ref. 2).
 FT CONFLICT 586 586 A -> S (in Ref. 2).
 SQ SEQUENCE 662 AA; 74182 MW; 7496B34B0A21894B CRC64;

Query Match 100.0%; Score 114; DB 1; Length 662;
 Best Local Similarity 100.0%; Pred. No. 6.4e-09;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRGPNPDVANYNFFPRPKP 19
 DB 100 PRGPNPDVANYNFFPRPKP 118
 RESULT 16
 Q6GWM9 RAT
 ID Q6GWM9 RAT PRELIMINARY; PRT; 662 AA.
 AC Q6GWM9;
 DT 05-JUL-2004 (TrEMBLrel. 27, Created)
 DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
 DE Mmp2 protein.
 GN Name=Mmp2;
 OS Rattus norvegicus (Rat).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
 OC Muridae; Muridae; Murinae; Rattus.
 OX NCBI_TaxID=10116;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC TISSUE=Lung;
 RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
 RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
 RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stapleton M., Soares M.B., Donald M.F., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
 RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullaby S.J.,
 RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
 RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Fahey J., Helton E., Kettman M., Madan A., Rodriguez S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
 RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
 RA Scherch A., Schein J.E., Jones S.U.M., Marra M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 and mouse cDNA sequences.";
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RC TISSUE=Lung;
 RG NIH MGC Project;
 RL Submitted (JUN-2004) to the EMBL/GenBank/DBJ databases.
 DR EMBL; BC074013; AAH74013.1; -; mRNA.
 DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
 DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
 DR GO; GO:0008270; F:zinc ion binding; IEA.
 DR GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
 DR InterPro; IPR000562; FN_type2_col_bd.
 DR InterPro; IPR000585; Hemopexin.
 DR InterPro; IPR001818; Pept M10A_M12B.
 DR InterPro; IPR006025; Pept_M_Zn_BS.
 DR InterPro; IPR006026; Peptidase_M.
 DR Pfam; PF00040; fn2; 3.
 DR Pfam; PF00045; Hemopexin; 4.
 DR Pfam; PF00413; Peptidase_M10; 1.
 DR Pfam; PF03933; Peptidase_M10_N; 1.
 DR PRINTS; PR00133; ENTYPETII.
 DR PRINTS; PR00138; MATRXIN.
 DR SMART; SM00059; FN2; 3.
 DR SMART; SM00120; HX; 4.
 DR SMART; SM00235; ZnMc; 1.
 DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
 DR PROSITE; PS00023; FN2_1; 3.

DR PROSITE; PS51092; FN2 2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC PROTEASE; 1.
KW Calcium; Hydrolase; Metal-binding; Metalloprotease; Protease; Zinc.
SQ SEQUENCE 662 AA; 74149 MW; C56BD787473FC03E CRC64;

Query Match 100.0%; Score 114; DB 2; Length 662;
Best Local Similarity 100.0%; Pred. No. 6.4e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRGCPDVPVANYNPPRPKPK 19
Db 100 PRGCPDVPVANYNPPRPKPK 118
|||||

RESULT 17
MMP2 CHICK STANDARD; PRT; 663 AA.
AC Q90611;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE 72 kDa type IV collagenase precursor (EC 3.4.24.24) (72 kDa
gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A).
GN Name=MMP2;
OS Gallus gallus (Chicken).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC Gallus.
OX NCBI_TaxID=9031;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Embryo;
RX MEDLINE=94280397; PubMed=8010954;
RA Ames R.T., French D.L., Quigley J.P.;
RT "Cloning of a 72 kDa matrix metalloproteinase (gelatinase) from
chicken embryo fibroblasts using gene family PCR: expression of the
gelatinase increases upon malignant transformation.";
RL Biochem. J. 300:729-736(1994).
RN [2]
RP PROTEIN SEQUENCE OF 27-41 AND 107-122.
RX MEDLINE=91161603; PubMed=1848240;
RA Chen J.-M., Ames R.T., Ward G.R., Youngleib G.L., Quigley J.P.;
RT "Isolation and characterization of a 70-kDa metalloprotease
(gelatinase) that is elevated in Rous sarcoma virus-transformed
chicken embryo fibroblasts.";
RL J. Biol. Chem. 266:5113-5121(1991).
CC -1- CATALYTIC ACTIVITY: Cleavage of gelatin type I and collagen types
IV, V, VII, X. Cleaves the collagen-like sequence Pro-Gln-Gly-|-
Ile-Ala-Gly-Gln.
CC -1- COPACTOR: Binds 4 calcium ions per subunit (By similarity).
CC -1- COFACTOR: Binds 2 zinc ions per subunit (By similarity).
CC -1- SUBUNIT: Ligand for integrin alpha-V/beta-3.
CC -1- TISSUE SPECIFICITY: Produced by normal skin fibroblasts.
CC -1- PM: The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-
MMP3) (By similarity).
CC -1- SIMILARITY: Belongs to the peptidase M10A family.
CC -1- SIMILARITY: Contains 3 fibronectin type-II domains.
CC -1- SIMILARITY: Contains 1 hemopexin-like domain.
CC -----
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CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
DR EMBL; U07775; AAA19596.1; -; mRNA.
DR PIR; S46492; S46492.
DR HSP; P08253; 1QIB.
DR MEROPS; M10.003; -.
DR Ensembl; ENSGALG00000003580; Gallus gallus.
DR InterPro; IPR000562; FN type2 col_bd.
DR InterPro; IPR000585; Hemopexin.

DR InterPro; IPR001818; Pept M10A_M12B.
DR InterPro; IPR006025; Pept_M_Zn_BS.
DR InterPro; IPR006026; Peptidase_M.
DR Pfam; PF00040; fn2; 3.
DR Pfam; PF00045; Hemopexin; 4.
DR Pfam; PF00413; Peptidase_M10; 1.
DR Pfam; PF03933; Peptidase_M10_N; 1.
DR PRINTS; PR00013; FNTYPEII.
DR PRINTS; PR00138; MATRIKXIN.
DR PRODOM; PD000995; FN_type_II; 3.
DR SMART; SM00059; FN2; 3.
DR SMART; SM00120; HX; 4.
DR SMART; SM00235; ZnMc; 1.
DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
DR PROSITE; PS00023; FN2_1; 3.
DR PROSITE; PS1092; FN2_2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC PROTEASE; 1.
KW Calcium; Collagen degradation; Direct protein sequencing;
KW Extracellular matrix; Hydrolase; Metal-binding; Metalloprotease;
KW Protease; Repeat; Signal; Zinc; Zymogen.
FT SIGNAL 1 26 Activation peptide.
FT CHAIN 27 106 72 kDa type IV collagenase.
FT DOMAIN 107 663 Fibronectin type-II 1.
FT DOMAIN 225 273 Fibronectin type-II 2.
FT DOMAIN 283 331 Fibronectin type-II 3.
FT DOMAIN 341 389 Hemopexin-like.
FT DOMAIN 469 663 Collagenase-like 1.
FT REGION 107 218 Collagen-binding.
FT REGION 219 393 Collagenase-like 2.
FT REGION 394 468 By similarity.
FT ACT SITE 401 401 Calcium 1 (By similarity).
FT METAL 131 131 Calcium 2 (By similarity).
FT METAL 165 165 Zinc 1 (By similarity).
FT METAL 175 175 Zinc 1 (By similarity).
FT METAL 177 177 Calcium 3 (By similarity).
FT METAL 182 182 Calcium 3 (via carbonyl oxygen) (By
FT METAL 183 183 similarity).
FT METAL 190 190 Zinc 1 (By similarity).
FT METAL 197 197 Calcium 2 (via carbonyl oxygen) (By
FT METAL 199 199 similarity).
FT METAL 201 201 Calcium 2 (via carbonyl oxygen) (By
FT METAL 203 203 similarity).
FT METAL 205 205 Calcium 2 (By similarity).
FT METAL 206 206 Calcium 3 (By similarity).
FT METAL 208 208 Calcium 3 (By similarity).
FT METAL 400 400 Zinc 2 (catalytic) (By similarity).
FT METAL 404 404 Zinc 2 (catalytic) (By similarity).
FT METAL 410 410 Zinc 2 (catalytic) (By similarity).
FT METAL 479 479 Calcium 4 (via carbonyl oxygen) (By
FT METAL 524 524 similarity).
FT METAL 572 572 Calcium 4 (via carbonyl oxygen) (By
FT METAL 621 621 similarity).
FT METAL 621 621 Calcium 4 (via carbonyl oxygen) (By
FT SITE 99 99 Cysteine switch (potential).
FT DISULFID 472 663 By similarity.
FT CONFLICT 40 40 P -> Q (in Ref. 2).
FT CONFLICT 116 116 W -> T (in Ref. 2).
FT CONFLICT 122 122 T -> I (in Ref. 2).
SQ SEQUENCE 663 AA; 74941 MW; 8D6FDA4B67C3EBCA CRC64;

Query Match 100.0%; Score 114; DB 1; Length 663;
Best Local Similarity 100.0%; Pred. No. 6.4e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRGCPDVPVANYNPPRPKPK 19
|||||

Db 97 PRGNPDVANYNFFPKPK 115

Search completed: February 21, 2006, 18:42:03
Job time : 191.5 secs

GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: February 21, 2006, 17:57:40 ; Search time 192 Seconds
(without alignments)
43.480 Million cell updates/sec

Title: US-10-601-059-11

Perfect score: 114

Sequence: 1 PRGNDPVANVFFPRPK 19

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 54

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 100%

Maximum Match 100%

Listing first 500 summaries

Database :

A_Geneseq 21.*
1: Geneseq1980s.*
2: Geneseq1990s.*
3: Geneseq2000s.*
4: Geneseq2001s.*
5: Geneseq2002s.*
6: Geneseq2003as.*
7: Geneseq2003bs.*
8: Geneseq2004s.*
9: Geneseq2005s.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	114	100.0	19	6	ABP97133 Human mat
2	114	100.0	19	6	ABG76319 Human mat
3	114	100.0	19	8	ADQ17094 Human mat
4	114	100.0	19	9	ADV68475 Human mat
5	114	100.0	23	2	AY07359 Matrix me
6	114	100.0	43	6	ABP97137 Human mat
7	114	100.0	43	6	ABG76323 Partial s
8	114	100.0	43	8	ADQ17098 Human mat
9	114	100.0	43	9	ADV68479 Human mat
10	114	100.0	44	6	ABP97124 Human mat
11	114	100.0	44	6	ABG76310 Human mat
12	114	100.0	44	8	ADQ17085 Human mat
13	114	100.0	44	9	ADV68466 Human mat
14	114	100.0	75	4	AM30829 Human mat
15	114	100.0	75	4	ABB22666 Protein #
16	114	100.0	75	5	ABG40146 Human pep
17	114	100.0	194	9	AEA20074 Novel hum
18	114	100.0	445	7	ADF59546 Human pol
19	114	100.0	462	9	AEA90447 Human lun
20	114	100.0	468	4	ABG24001 Novel hum
21	114	100.0	623	8	ABM84057 Human dia
22	114	100.0	631	1	AAP96143 Sequence
23	114	100.0	631	1	AAP91139 Human typ
24	114	100.0	631	2	AAR07969 Complete

25	114	100.0	631	2	AA07350 Human typ
26	114	100.0	631	2	AAW41226 Human mat
27	114	100.0	631	7	ADM48668 Human mat
28	114	100.0	631	8	ADT05996 Human mat
29	114	100.0	633	8	ADT05997 Mouse mat
30	114	100.0	644	4	AAB20490 Human mat
31	114	100.0	660	2	AAR06420 Type IV C
32	114	100.0	660	4	AAB84607 Amino aci
33	114	100.0	660	4	AAE10431 Human mat
34	114	100.0	660	5	ABB79413 Human mat
35	114	100.0	660	5	ABB90738 Human Tum
36	114	100.0	660	5	AAU84348 Protein M
37	114	100.0	660	6	ABU54445 Human tum
38	114	100.0	660	6	ABP97136 Human mat
39	114	100.0	660	6	AAO16608 Human mat
40	114	100.0	660	6	ABG76322 Human mat
41	114	100.0	660	7	ADD18578 Human dis
42	114	100.0	660	7	ADP65244 Human mat
43	114	100.0	660	8	ADN07697 Human mat
44	114	100.0	660	8	ADQ17097 Human mat
45	114	100.0	660	9	ADV90301 Protease-
46	114	100.0	660	9	ADV68478 Human mat
47	114	100.0	662	7	ADG62857 Rat Prote
48	114	100.0	662	7	ADD46270 Rat Prote
49	114	100.0	663	2	AAW41111 Chicken m
50	114	100.0	663	8	ADT05976 Chicken m
51	114	100.0	663	8	ADT05995 Chicken m
52	114	100.0	708	7	ADF60554 Human Con
53	114	100.0	708	9	AEA20970 Novel hum
54	114	100.0	1330	4	ABG23999 Novel hum

ALIGNMENTS

RESULT 1
ABP97133
ID ABP97133 standard; peptide; 19 AA.
XX
AC ABP97133;
XX
DT 24-JUN-2003 (first entry)
XX
DE Human matrix metalloproteinase 2 cleavage region peptide SEQ ID NO:11.
XX
KW Human; matrix metalloproteinase; MMP; anticancer; wound healing;
KW matrix metalloproteinase inhibitor; antitumour; antiangiogenic; cardiant;
KW vascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic;
KW vulnery; cerebroprotective; antidiabetic; ophthalmological; tumour;
KW dermatological; metastatic; non-metastatic; vascularised; heart disease;
KW non-vascularised; surgical incision; chronic wound; stroke; angiogenesis;
KW macular degeneration; diabetic retinopathy; cleavage region.
OS Homo sapiens.
PN WO2003018748-A2.
XX
PD 06-MAR-2003.
XX
PF 15-AUG-2002; 2002WO-US026319.
XX
PR 16-AUG-2001; 2001US-0312726P.
PR 21-DEC-2001; 2001US-00032376.
PR 21-MAY-2002; 2002US-00153185.

(KIMB) KIMBERLY-CLARK WORLDWIDE INC.

Quirk S, Weart IF;

WPI; 2003-381408/36.

Anti-angiogenic composition comprising peptide inhibitor of matrix metalloproteinase, useful for decreasing the expression of vascular

PT endothelial growth factor and treating cancers and tissue injuries.

XX Claim 17; Page 45; 103pp; English.

XX The present invention describes an anti-angiogenic composition (I) for

CC inhibiting expression of vascular endothelial growth factor (VEGF). (I)

CC comprises an effective amount of a peptide inhibitor of matrix

CC metalloproteinase (MMP), where the peptide can inhibit the expression of

CC VEGF. (I) has cytostatic, vulnerary, cardiant, cerebroprotective,

CC antidiabetic, ophthalmological and dermatological activities. (I) can be

CC used for inhibiting expression of VEGF, and so can be used for inhibiting

CC growth of tumours and diminishing tumours size. The tumour can be

CC metastatic, non-metastatic, vascularised, non-vascularised, hard or soft.

CC (I) is also useful for treating injuries including wounds, surgical

CC incisions, chronic wounds, heart diseases and stroke. (I) is also useful

CC for treating disorders characterised by excessive angiogenesis e.g.

CC macular degeneration and diabetic retinopathy. The present sequence

CC represents a human MMP cleavage region peptide, which is used in the

CC exemplification of the present invention

XX Sequence 19 AA;

Query Match 100.0%; Score 114; DB 6; Length 19;

Best Local Similarity 100.0%; Pred. No. 9.8e-11;

Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRGPNPDVANYNFFPRKPK 19

Db 1 PRGPNPDVANYNFFPRKPK 19

RESULT 2

ABG76319

ID ABG76319 standard; peptide; 19 AA.

XX

AC ABG76319;

XX

DT 10-MAY-2003 (first entry)

DE Human matrix metalloproteinase (MMP) peptide inhibitor #11.

XX

KW Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2;

KW cleavage region; proenzyme form; cellular proliferation; fibroblast;

KW keratinocyte; healthy skin development; wound healing; scarring;

KW skin tone; wrinkle; anti-aging; vulnerary.

XX

OS Homo sapiens.

XX

PN WO2003016520-A1.

XX

PD 27-FEB-2003.

XX

PF 15-AUG-2002; 2002WO-US026198.

XX

PR 16-AUG-2001; 2001US-0312726P.

PR 21-DEC-2001; 2001US-00032376.

PR 21-MAY-2002; 2002US-00153185.

XX

PA (KIMB) KIMBERLY-CLARK WORLDWIDE INC.

XX

PI Quirk S, Malik S, Villanueva JM;

XX

DR WPI; 2003-289980/28.

XX

PT Novel peptide inhibitor of proteinase activity of matrix

PT metalloproteinases, e.g. matrix metalloproteinase-2, useful for

PT stimulating cellular proliferation of fibroblasts or keratinocytes.

XX

PS Claim 1; Page 44; 120pp; English.

XX

CC The present invention relates to peptide inhibitors of metalloproteinases

CC (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have

CC peptide sequences related to the cleavage regions of the proenzyme forms

CC of the MMPs. The peptide inhibitors are useful for stimulating cellular

CC proliferation of fibroblasts or keratinocytes, promoting healthy skin

CC development, treating wounds, preventing scarring, improving skin tone,

CC reducing wrinkling and for simulating the development of smooth, healthy

CC skin. The peptide inhibitors are useful as anti-aging and wound healing

CC compounds. ABG76309-ABG76321 represent peptide inhibitors of MMPs

XX Sequence 19 AA;

Query Match 100.0%; Score 114; DB 6; Length 19;

Best Local Similarity 100.0%; Pred. No. 9.8e-11;

Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRGPNPDVANYNFFPRKPK 19

Db 1 PRGPNPDVANYNFFPRKPK 19

RESULT 3

ADQ17094

ID ADQ17094 standard; peptide; 19 AA.

XX

AC ADQ17094;

XX

DT 23-SEP-2004 (first entry)

XX

DE Human matrix metalloproteinase-2 (MMP2) cleavage region peptide #2.

XX

KW Fibronectin; healthy skin; wrinkle; wound; vulnerary; dermatological;

KW human; matrix metalloproteinase; MMP.

XX

OS Homo sapiens.

XX

PN US2004127421-A1.

XX

PD 01-JUL-2004.

XX

PF 30-DEC-2002; 2002US-00335207.

XX

PR 30-DEC-2002; 2002US-00335207.

XX

PA (MALI/) MALIK S.

PA (QUIR/) QUIRK S.

XX

PI Malik S, Quirk S;

XX

DR WPI; 2004-506456/48.

XX

PT Composition used for preventing and treating wrinkles and treating wounds

PT comprises peptide having sequence related to matrix metalloproteinase

PT proenzyme.

XX

PS Claim 11; SEQ ID NO 11; 60pp; English.

XX

CC The present invention provides peptides and compositions containing such

CC peptides that are useful as agents to maintain healthy skin and to

CC promote the condition of the skin. The invention is useful for increasing

CC the amount of fibronectin in tissue. The invention is also useful for

CC encouraging the maintenance and development of healthy skin, preventing

CC and treating wrinkles and for treating wounds. The invention acts as

CC vulnerary and dermatological agents. The present sequence is human matrix

CC metalloproteinase (MMP) cleavage region peptide. This sequence is used in

CC the exemplification of the invention.

XX

Sequence 19 AA;

Query Match 100.0%; Score 114; DB 8; Length 19;

Best Local Similarity 100.0%; Pred. No. 9.8e-11;

Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRGPNPDVANYNFFPRKPK 19

Db 1 PRGPNPDVANYNFFPRKPK 19

KW macular degeneration; diabetic retinopathy; cleavage region.
 XX Homo sapiens.
 XX WO2003018748-A2.
 XX 06-MAR-2003.
 XX 15-AUG-2002; 2002WO-US026319.
 XX 16-AUG-2001; 2001US-0312726P.
 PR 21-DEC-2001; 2001US-00032376.
 PR 21-MAY-2002; 2002US-00153185.
 XX (KIMB) KIMBERLY-CLARK WORLDWIDE INC.
 PA Quirk S, Weart IF;
 XX WPI; 2003-381408/36.
 DR XX Anti-angiogenic composition comprising peptide inhibitor of matrix metalloproteinase, useful for decreasing the expression of vascular endothelial growth factor and treating cancers and tissue injuries.
 XX Disclosure; Page 26; 103pp; English.
 XX The present invention describes an anti-angiogenic composition (I) for inhibiting expression of vascular endothelial growth factor (VEGF). (I) comprises an effective amount of a peptide inhibitor of matrix metalloproteinase (MMP), where the peptide can inhibit the expression of VEGF. (I) has cytostatic, vulnarary, cardiant, cerebroprotective, CC antiadiabetic, ophthalmological and dermatological activities. (I) can be used for inhibiting expression of VEGF, and so can be used for inhibiting CC growth of tumours and diminishing tumours size. The tumour can be CC metastatic, non-metastatic, vascularised, non-vascularised, hard or soft. CC (I) is also useful for treating injuries including wounds, surgical CC incisions, chronic wounds, heart diseases and stroke. (I) is also useful CC for treating disorders characterised by excessive angiogenesis e.g. CC macular degeneration and diabetic retinopathy. The present sequence CC represents a human MMP peptide, which is used in the exemplification of CC the present invention
 XX SQ Sequence 43 AA;
 Query Match 100.0%; Score 114; DB 6; Length 43;
 Best Local Similarity 100.0%; Pred. No. 2.4e-10;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRCGNPDVANYNFFPRPK 19
 DB 24 PRCGNPDVANYNFFPRPK 42
 RESULT 7
 ABG76323
 ID ABG76323 standard; protein; 43 AA.
 XX AC ABG76323;
 XX 10-MAY-2003 (first entry)
 DT XX Partial sequence from human matrix metalloproteinase-2 (MMP-2).
 DE XX Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2;
 KW cleavage region; proenzyme form; cellular proliferation; fibroblast;
 KW keratinocyte; healthy skin development; wound healing; scarring;
 KW skin tone; wrinkle; anti-aging; vulnarary.
 XX Homo sapiens.
 OS WO2003016520-A1.
 XX 27-FEB-2003.
 PD

XX 15-AUG-2002; 2002WO-US026198.
 XX 16-AUG-2001; 2001US-0312726P.
 PR 21-DEC-2001; 2001US-00032376.
 PR 21-MAY-2002; 2002US-00153185.
 XX (KIMB) KIMBERLY-CLARK WORLDWIDE INC.
 PA Quirk S, Malik S, Villanueva JM;
 XX WPI; 2003-289980/28.
 DR XX Novel peptide inhibitor of proteinase activity of matrix metalloproteinases, e.g. matrix metalloproteinase-2, useful for PT stimulating cellular proliferation of fibroblasts or keratinocytes.
 XX Claim 1; Page 27; 120pp; English.
 XX The present invention relates to peptide inhibitors of metalloproteinases (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have CC peptide sequences related to the cleavage regions of the proenzyme forms CC of the MMPs. The peptide inhibitors are useful for stimulating cellular CC proliferation of fibroblasts or keratinocytes, promoting healthy skin CC development, treating wounds, preventing scarring, improving skin tone, CC reducing wrinkling and for stimulating the development of smooth, healthy CC skin. The peptide inhibitors are useful as anti-aging and wound healing CC compounds. The present sequence represents a partial sequence of human CC MMP-2
 XX SQ Sequence 43 AA;
 Query Match 100.0%; Score 114; DB 6; Length 43;
 Best Local Similarity 100.0%; Pred. No. 2.4e-10;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRCGNPDVANYNFFPRPK 19
 DB 24 PRCGNPDVANYNFFPRPK 42
 RESULT 8
 ADQ17098
 ID ADQ17098 standard; peptide; 43 AA.
 XX AC ADQ17098;
 XX 23-SEP-2004 (first entry)
 DT XX Human matrix metalloproteinase-2 (MMP2) wound site peptide.
 DE XX Fibronectin; healthy skin; wrinkle; wound; vulnarary; dermatological;
 KW human; matrix metalloproteinase; MMP.
 XX Homo sapiens.
 OS US2004127421-A1.
 XX 01-JUL-2004.
 PD XX 30-DEC-2002; 2002US-00335207.
 PF XX 30-DEC-2002; 2002US-00335207.
 PR (MALI/) MALIK S.
 PA (QUIR/) QUIRK S.
 XX Malik S, Quirk S;
 PI WPI; 2004-506456/48.
 XX Composition used for preventing and treating wrinkles and treating wounds
 PT comprises peptide having sequence related to matrix metalloproteinase

PT proenzyme.
 PS Disclosure; SEQ ID NO 15; 60pp; English.
 XX
 CC The present invention provides peptides and compositions containing such
 CC peptides that are useful as agents to maintain healthy skin and to
 CC promote the condition of the skin. The invention is useful for increasing
 CC the amount of fibronectin in tissue. The invention is also useful for
 CC encouraging the maintenance and development of healthy skin, preventing
 CC and treating wrinkles and for treating wounds. The invention acts as
 CC vulnary and dermatological agents. The present invention is human matrix
 CC metalloproteinase (MMP) wound site peptide. This sequence is used in the
 CC exemplification of the invention.
 XX
 SQ Sequence 43 AA;
 Query Match 100.0%; Score 114; DB 8; Length 43;
 Best Local Similarity 100.0%; Pred. No. 2.4e-10;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRGNDPVANYPFRPK 19
 DB 24 PRGNDPVANYPFRPK 42
 RESULT 9
 ADV68479
 ID ADV68479 standard; protein; 43 AA.
 XX
 AC ADV68479;
 XX
 XX 10-MAR-2005 (first entry)
 DT
 DE Human matrix metalloproteinase-2 polypeptide SeqID15.
 XX
 KW cell growth; pharmaceutical; cytostatic; metalloproteinase 1 inhibitor;
 KW metalloproteinase 2 inhibitor; metalloproteinase 3 inhibitor;
 KW metalloproteinase 4 inhibitor; metalloproteinase 5 inhibitor;
 KW metalloproteinase 6 inhibitor; metalloproteinase 7 inhibitor;
 KW metalloproteinase 8 inhibitor; metalloproteinase 9 inhibitor;
 KW metalloproteinase 10 inhibitor; metalloproteinase 11 inhibitor;
 KW metalloproteinase 12 inhibitor; metalloproteinase 13 inhibitor;
 KW metalloproteinase inhibitor; bone tumor; sarcoma.
 XX
 OS Homo sapiens.
 XX
 XX US2004259802-A1.
 XX
 XX 23-DEC-2004.
 XX
 XX 20-JUN-2003; 2003US-00601059.
 XX
 XX 20-JUN-2003; 2003US-00601059.
 XX
 XX (YANG/) YANG S.
 XX (QUIR/) QUIRK S.
 XX
 XX Yang S, Quirk S;
 XX
 XX WPI; 2005-047374/05.
 XX
 XX A composition for decreasing and inhibiting the growth of chondrosarcoma
 XX cells, useful for treating chondrosarcomas and bone cancer, comprises a
 XX matrix metalloproteinase inhibitor.
 XX
 XX Disclosure; SEQ ID NO 15; 50pp; English.
 XX
 CC This invention relates to a novel composition for inhibiting growth of
 CC chondrosarcoma cells comprising an amount of a peptide and a
 CC pharmaceutical carrier. The invention may be useful for the production of
 CC compounds with a cytostatic activity acting as metalloproteinase 1
 CC inhibitors, metalloproteinase 2 inhibitors, metalloproteinase 3 inhibitors,
 CC metalloproteinase 4 inhibitors, metalloproteinase 5 inhibitors,

CC metalloproteinase 6 inhibitors, metalloproteinase 7 inhibitors,
 CC metalloproteinase 8 inhibitors, metalloproteinase 9 inhibitors,
 CC metalloproteinase 10 inhibitors, metalloproteinase 11 inhibitors,
 CC metalloproteinase 12 inhibitors, metalloproteinase 13 inhibitors, or
 CC metalloproteinase inhibitors. The composition is useful for decreasing and
 CC inhibiting the growth of chondrosarcoma cells which in turn inhibits
 CC growth of a bone tumor or diminishes a size of a bone tumor, useful for
 CC treating chondrosarcomas and bone cancers. The present sequence is that
 CC of a peptide derived from a human matrix metalloproteinase which may be
 CC used during the development of a composition of the invention.
 XX
 SQ Sequence 43 AA;
 Query Match 100.0%; Score 114; DB 9; Length 43;
 Best Local Similarity 100.0%; Pred. No. 2.4e-10;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRGNDPVANYPFRPK 19
 DB 24 PRGNDPVANYPFRPK 42
 RESULT 10
 ABP97124
 ID ABP97124 standard; peptide; 44 AA.
 XX
 AC ABP97124;
 XX
 XX 24-JUN-2003 (first entry)
 DT
 DE Human matrix metalloproteinase 2 cleavage region peptide SEQ ID NO:2.
 XX
 KW Human; matrix metalloproteinase; MMP; anticancer; wound healing;
 KW matrix metalloproteinase inhibitor; antitumor; angiogenic; cardiac;
 KW vascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic;
 KW vulnary; cerebroprotective; antidiabetic; ophthalmological; tumour;
 KW dermatological; metastatic; non-metastatic; vascularised; heart disease;
 KW non-vascularised; surgical incision; chronic wound; stroke; angiogenesis;
 KW macular degeneration; diabetic retinopathy; cleavage region.
 XX
 OS Homo sapiens.
 XX
 XX WO2003018748-A2.
 XX
 XX 06-MAR-2003.
 XX
 XX 15-AUG-2002; 2002WO-US026319.
 XX
 XX 16-AUG-2001; 2001US-0312726P.
 XX 21-DEC-2001; 2001US-00032376.
 XX 21-MAY-2002; 2002US-00153185.
 XX
 XX (KIMB) KIMBERLY-CLARK WORLDWIDE INC.
 XX
 XX Quirk S, Weart IF;
 XX
 XX WPI; 2003-381408/36.
 XX
 XX Anti-angiogenic composition comprising peptide inhibitor of matrix
 XX metalloproteinase, useful for decreasing the expression of vascular
 XX endothelial growth factor and treating cancers and tissue injuries.
 XX
 XX Claim 17; Page 15; 103pp; English.
 XX
 CC The present invention describes an anti-angiogenic composition (I) for
 CC inhibiting expression of vascular endothelial growth factor (VEGF). (I)
 CC comprises an effective amount of a peptide inhibitor of matrix
 CC metalloproteinase (MMP), where the peptide can inhibit the expression of
 CC VEGF. (I) has cytostatic, vulnary, cardiac, cerebroprotective, and
 CC antidiabetic, ophthalmological and dermatological activities. (I) can be
 CC used for inhibiting expression of VEGF, and so can be used for inhibiting
 CC growth of tumours and diminishing tumours size. The tumour can be
 CC metastatic, non-metastatic, vascularised, non-vascularised, hard or soft.

CC (I) is also useful for treating injuries including wounds, surgical
 CC incisions, chronic wounds, heart diseases and stroke. (I) is also useful
 CC for treating disorders characterised by excessive angiogenesis e.g.
 CC macular degeneration and diabetic retinopathy. The present sequence
 CC represents a human MMP cleavage region peptide, which is used in the
 CC exemplification of the present invention

XX SQ Sequence 44 AA;

Query Match 100.0%; Score 114; DB 6; Length 44;
 Best Local Similarity 100.0%; Pred. No. 2.5e-10;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNDVANYNFFPRKPK 19
 DB 24 PRCGNDVANYNFFPRKPK 42

RESULT 11

ABG76310
 ID ABG76310 standard; protein; 44 AA.

XX AC ABG76310;

DT 10-MAY-2003 (first entry)

DE Human matrix metalloproteinase (MMP) peptide inhibitor #2.

XX Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2;
 KW cleavage region; proenzyme form; cellular proliferation; fibroblast;
 KW keratinocyte; healthy skin development; wound healing; scarring;
 KW skin tone; wrinkle; anti-aging; vulnerary.

XX OS Homo sapiens.

XX PN WO2003016520-A1.

XX PD 27-FEB-2003.

XX PF 15-AUG-2002; 2002WO-US026198.

XX PR 16-AUG-2001; 2001US-0312726P.

XX PR 21-DEC-2001; 2001US-00032376.

XX PR 21-MAY-2002; 2002US-00153185.

XX PA (KIMB) KIMBERLY-CLARK WORLDWIDE INC.

XX PI Quirk S, Malik S, Villanueva JM;

XX DR WPI; 2003-289980/28.

XX PT Novel peptide inhibitor of proteinase activity of matrix

XX PT metalloproteinases, e.g. matrix metalloproteinase-2, useful for

XX PT stimulating cellular proliferation of fibroblasts or keratinocytes.

XX PS Claim 1; Page 16; 120pp; English.

XX The present invention relates to peptide inhibitors of metalloproteinases
 CC (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have
 CC peptide sequences related to the cleavage regions of the proenzyme forms
 CC of the MMPs. The peptide inhibitors are useful for stimulating cellular
 CC proliferation of fibroblasts or keratinocytes, promoting healthy skin
 CC development, treating wounds, preventing scarring, improving skin tone,
 CC reducing wrinkling and for stimulating the development of smooth, healthy
 CC skin. The peptide inhibitors are useful as anti-aging and wound healing
 CC compounds. ABG76309-ABG76321 represent peptide inhibitors of MMPs

XX SQ Sequence 44 AA;

Query Match 100.0%; Score 114; DB 6; Length 44;
 Best Local Similarity 100.0%; Pred. No. 2.5e-10;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNDVANYNFFPRKPK 19
 DB 24 PRCGNDVANYNFFPRKPK 42

RESULT 12

ADQ17085
 ID ADQ17085 standard; peptide; 44 AA.

XX AC ADQ17085;

DT 23-SEP-2004 (first entry)

DE Human matrix metalloproteinase-2 (MMP2) cleavage region peptide #1.

XX KW Fibronectin; healthy skin; wrinkle; wound; vulnerary; dermatological;

XX KW human; matrix metalloproteinase; MMP.

XX OS Homo sapiens.

XX PN US2004127421-A1.

XX PD 01-JUL-2004.

XX PF 30-DEC-2002; 2002US-00335207.

XX PR 30-DEC-2002; 2002US-00335207.

XX PA (MALI/) MALIK S.

XX PA (QUIR/) QUIRK S.

XX PI Malik S, Quirk S;

XX DR WPI; 2004-506456/48.

XX PT Composition used for preventing and treating wrinkles and treating wounds

XX PT comprises peptide having sequence related to matrix metalloproteinase

XX PS Example 1; SEQ ID NO 2; 60pp; English.

XX The present invention provides peptides and compositions containing such
 CC peptides that are useful as agents to maintain healthy skin and to
 CC promote the condition of the skin. The invention is useful for increasing
 CC the amount of fibronectin in tissue. The invention is also useful for
 CC encouraging the maintenance and development of healthy skin, preventing
 CC and treating wrinkles and for treating wounds. The invention acts as
 CC vulnerary and dermatological agents. The present sequence is human matrix
 CC metalloproteinase (MMP) cleavage region peptide. This sequence is used in
 CC the exemplification of the invention.

XX SQ Sequence 44 AA;

Query Match 100.0%; Score 114; DB 8; Length 44;
 Best Local Similarity 100.0%; Pred. No. 2.5e-10;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNDVANYNFFPRKPK 19
 DB 24 PRCGNDVANYNFFPRKPK 42

RESULT 13

ADV68466
 ID ADV68466 standard; protein; 44 AA.

XX AC ADV68466;

XX DT 10-MAR-2005 (first entry)

XX DE Human matrix metalloproteinase-2 cleavage region polypeptide SeqID2.

XX KW cell growth; pharmaceutical; cytostatic; metalloprotease 1 inhibitor;

KW metalloprotease 2 inhibitor; metalloprotease 3 inhibitor;
KW metalloprotease 4 inhibitor; metalloprotease 5 inhibitor;
KW metalloprotease 6 inhibitor; metalloprotease 7 inhibitor;
KW metalloprotease 8 inhibitor; metalloprotease 9 inhibitor;
KW metalloprotease 10 inhibitor; metalloprotease 11 inhibitor;
KW metalloprotease 12 inhibitor; metalloprotease 13 inhibitor;
KW metalloprotease inhibitor; bone tumor; sarcoma.
XX Homo sapiens.
XX
XX US2004259802-A1.
XX
XX 23-DEC-2004.
XX
XX 20-JUN-2003; 2003US-00601059.
XX
XX 20-JUN-2003; 2003US-00601059.
XX
XX (YANG/) YANG S.
XX (QUIR/) QUIRK S.
XX
XX Yang S, Quirk S;
XX
XX WPI; 2005-047374/05.
XX
XX
XX A composition for decreasing and inhibiting the growth of chondrosarcoma
XX cells, useful for treating chondrosarcomas and bone cancer, comprises a
XX matrix metalloproteinase inhibitor.
XX
XX Claim 16; SEQ ID NO 2; 50pp; English.
XX
XX This invention relates to a novel composition for inhibiting growth of
XX chondrosarcoma cells comprising an amount of a peptide and a
XX pharmaceutical carrier. The invention may be useful for the production of
XX compounds with a cytostatic activity acting as metalloprotease 1
XX inhibitors, metalloprotease 2 inhibitors, metalloprotease 3 inhibitors,
XX metalloprotease 4 inhibitors, metalloprotease 5 inhibitors,
XX metalloprotease 6 inhibitors, metalloprotease 7 inhibitors,
XX metalloprotease 8 inhibitors, metalloprotease 9 inhibitors,
XX metalloprotease 10 inhibitors, metalloprotease 11 inhibitors,
XX metalloprotease 12 inhibitors, metalloprotease 13 inhibitors or
XX metalloprotease inhibitors. The composition is useful for decreasing and
XX inhibiting the growth of chondrosarcoma cells which in turn inhibits
XX growth of a bone tumor or diminishes a size of a bone tumor, useful for
XX treating chondrosarcomas and bone cancers. The present sequence is that
XX of a peptide derived from a human matrix metalloproteinase which may be
XX used during the development of a composition of the invention.
XX
XX Sequence 44 AA;

Query Match 100.0%; Score 114; DB 9; Length 44;
Best Local Similarity 100.0%; Pred. No. 2.5e-10;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRKPK 19
DB 24 PRCGNPDVANYNFFPRKPK 42
|||||

RESULT 14
AAM30829
ID AAM30829 standard; protein; 75 AA.
XX
XX AAM30829;
XX
XX 17-OCT-2001 (first entry)
XX
XX Peptide #486 encoded by probe for measuring placental gene expression.

XX Probe; microarray; human; placenta; antenatal diagnosis;
XX genetic disorder.
XX
XX Homo sapiens.

XX WO200157272-A2.
XX
XX 09-AUG-2001.
XX
XX 30-JAN-2001; 2001WO-US000663.
XX
XX 04-FEB-2000; 2000US-0180312P.
XX 26-MAY-2000; 2000US-0207456P.
XX 30-JUN-2000; 2000US-00608408.
XX 03-AUG-2000; 2000US-00632366.
XX 21-SEP-2000; 2000US-0234687P.
XX 27-SEP-2000; 2000US-0236359P.
XX 04-OCT-2000; 2000GB-00024263.
XX
XX (MOLE-) MOLECULAR DYNAMICS INC.
XX
XX Penn SG, Hanzel DK, Chen W, Rank DR;
XX WPI; 2001-488897/53.
XX
XX Human genome-derived single exon nucleic acid probes useful for analyzing
XX gene expression in human placenta.
XX
XX Claim 27; SEQ ID NO 31098; 654pp; English.
XX
XX The present invention relates to single exon nucleic acid probes (SENP;
XX see AAI31315-AA157546). The present sequence is a peptide encoded by one
XX such probe. The probes are useful for producing a microarray for
XX predicting, measuring and displaying gene expression in samples derived
XX from human placenta. The probes are useful for antenatal diagnosis of
XX human genetic disorders
XX
XX Sequence 75 AA;

Query Match 100.0%; Score 114; DB 4; Length 75;
Best Local Similarity 100.0%; Pred. No. 4.5e-10;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRKPK 19
DB 49 PRCGNPDVANYNFFPRKPK 67
|||||

RESULT 15
ABB22666
ID ABB22666 standard; protein; 75 AA.
XX
XX ABB22666;
XX
XX 23-JAN-2002 (first entry)
XX
XX Protein #4665 encoded by probe for measuring heart cell gene expression.

XX Human; gene expression; heart; microarray; vascular system;
XX cardiovascular disease; hypertension; cardiac arrhythmia;
XX congenital heart disease.
XX
XX Homo sapiens.

XX WO200157274-A2.
XX
XX 09-AUG-2001.
XX
XX 30-JAN-2001; 2001WO-US000666.
XX
XX 04-FEB-2000; 2000US-0180312P.
XX 26-MAY-2000; 2000US-0207456P.
XX 30-JUN-2000; 2000US-00608408.
XX 03-AUG-2000; 2000US-00632366.
XX 21-SEP-2000; 2000US-0234687P.
XX 27-SEP-2000; 2000US-0236359P.
XX 04-OCT-2000; 2000GB-00024263.

```

XX (MOLE-) MOLECULAR DYNAMICS INC.
XX PA
XX PI
XX PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX DR
XX XX WPI; 2001-48899/53.
XX DR
XX XX Single exon nucleic acid probes for analyzing gene expression in human
XX PT hearts.
XX PT
XX PS Claim 15; SEQ ID NO 24436; 530pp; English.
XX XX
XX CC The present invention relates to single exon nucleic acid probes for
XX CC measuring human gene expression in a sample derived from human heart (see
XX CC ABA21535-ABA41305). The present sequence is a protein encoded by one such
XX CC probe. The probes may be used for predicting, measuring and displaying
XX CC gene expression in samples derived from the human heart via microarrays.
XX CC By measuring gene expression, the probes are useful for predicting,
XX CC diagnosing, grading, staging, monitoring and prognosing diseases of the
XX CC human heart and vascular system e.g. cardiovascular disease,
XX CC hypertension, cardiac arrhythmias and congenital heart disease. Note: The
XX CC sequence data for this patent did not form part of the printed
XX CC specification, but was obtained in electronic format directly from WIPO
XX CC at ftp.wipo.int/pub/published_pct_sequences
XX SQ Sequence 75 AA;
XX
XX Query Match 100.0%; Score 114; DB 4; Length 75;
XX Best Local Similarity 100.0%; Pred. No. 4.5e-10;
XX Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX QY 1 PRCGNPDVANYNFFPRKPK 19
XX Db |||||
XX 49 PRCGNPDVANYNFFPRKPK 67
XX
XX RESULT 16
XX ABA40146
XX ID ABA40146 standard; peptide; 75 AA.
XX XX
XX AC ABA40146;
XX XX
XX DT 19-AUG-2002 (first entry)
XX XX
XX DE Human peptide encoded by genome-derived single exon probe SEQ ID 29811.
XX XX
XX KW Human; single exon probe; asthma; lung cancer; COPD; ILD;
XX KW chronic obstructive pulmonary disease; interstitial lung disease;
XX KW familial idiopathic pulmonary fibrosis; neurofibromatosis;
XX KW tuberous sclerosis; Gaucher's disease; Niemann-Pick disease;
XX KW Hermansky-Pudlak syndrome; sarcoidosis; pulmonary haemosiderosis;
XX KW pulmonary histiocytosis; lymphangioleiomyomatosis; Karagener syndrome;
XX KW pulmonary alveolar proteinosis; fibrocystic pulmonary dysplasia;
XX KW primary ciliary dyskinesia; pulmonary hypertension;
XX KW hyaline membrane disease.
XX XX
XX OS Homo sapiens.
XX XX
XX PN WO200186003-A2.
XX XX
XX PD 15-NOV-2001.
XX XX
XX PF 30-JAN-2001; 2001WO-US000665.
XX XX
XX PR 04-FEB-2000; 2000US-0180312P.
XX PR 26-MAY-2000; 2000US-0207456P.
XX PR 30-JUN-2000; 2000US-00608408.
XX PR 03-AUG-2000; 2000US-00632366.
XX PR 21-SEP-2000; 2000US-0234687P.
XX PR 27-SEP-2000; 2000US-0236359P.
XX PR 04-OCT-2000; 2000GB-00024263.
XX XX
XX PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
XX PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX DR
XX XX WPI; 2002-114183/15.
XX DR
XX XX Spatially-addressable set of single exon nucleic acid probes, used to
XX PT measure gene expression in human lung samples.
XX PT
XX PS Claim 27; SEQ ID NO 29811; 634pp; English.
XX XX
XX CC The invention relates to a spatially-addressable set of single exon
XX CC nucleic acid probes for measuring gene expression in a sample derived
XX CC from human lung comprising single exon nucleic acid probes having one of
XX CC 12614 nucleic acid sequences mentioned in the specification, or their
XX CC complements or the 12387 open reading frames derived from the 12614
XX CC probes. Also included are a microarray comprising the novel set of probes
XX CC ; the novel set of probes which hybridise at high stringency to a nucleic
XX CC acid expressed in the human lung; measuring gene expression in a sample
XX CC derived from human lung, comprising (a) contacting the array with a
XX CC collection of detectably labeled nucleic acids derived from human lung
XX CC mRNA, and (b) measuring the label detectably bound to each probe of the
XX CC array; identifying exons in a eukaryotic genome, comprising (a)
XX CC algorithmically predicting at least one exon from genomic sequences of
XX CC the eukaryote; and (b) detecting specific hybridisation of detectably
XX CC labeled nucleic acids from eukaryote lung mRNA, to a single exon probe,
XX CC having a fragment identical to the predicted exon, the probe is included
XX CC in the above mentioned microarray; assigning exons to a single gene,
XX CC comprising (a) identifying exons from genomic sequence by the method
XX CC above and (b) measuring the expression of each of the exons in several
XX CC tissues and/or cell types using hybridisation to a single exon
XX CC microarrays having a probe with the exon, where a common pattern of
XX CC expression of the exons in the tissues and/or cell types indicates that
XX CC the exons should be assigned to a single gene; a peptide comprising one
XX CC of 12011 sequences, mentioned in the specification, or encoded by the
XX CC probes/open reading frames (ORF). The probes are used for gene expression
XX CC analysis, and for identifying exons in a gene, particularly using human
XX CC lung derived mRNA and for the study of lung diseases such as asthma, lung
XX CC cancer, chronic obstructive pulmonary disease (COPD), interstitial lung
XX CC disease (ILD), familial idiopathic pulmonary fibrosis, neurofibromatosis,
XX CC tuberous sclerosis, Gaucher's disease, Niemann-Pick disease, Hermansky-
XX CC Pudlak syndrome, sarcoidosis, pulmonary haemosiderosis, pulmonary
XX CC histiocytosis, lymphangioleiomyomatosis, pulmonary alveolar proteinosis,
XX CC Karagener syndrome, fibrocystic pulmonary dysplasia, primary ciliary
XX CC dyskinesia, pulmonary hypertension and hyaline membrane disease. The
XX CC present sequence is a peptide/protein encoded by a single exon probe of
XX CC the invention. Note: The sequence data for this patent did not form part
XX CC of the printed specification, but was obtained in electronic format
XX CC directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
XX XX
XX SQ Sequence 75 AA;
XX
XX Query Match 100.0%; Score 114; DB 5; Length 75;
XX Best Local Similarity 100.0%; Pred. No. 4.5e-10;
XX Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX QY 1 PRCGNPDVANYNFFPRKPK 19
XX Db |||||
XX 49 PRCGNPDVANYNFFPRKPK 67
XX
XX RESULT 17
XX ABA20074
XX ID ABA20074 standard; protein; 194 AA.
XX XX
XX AC ABA20074;
XX XX
XX DT 11-AUG-2005 (first entry)
XX XX
XX DE Novel human polypeptide SEQ ID NO 768.
XX XX
XX KW vulnary; CNS-gen.; gene therapy; diagnostic; forensic; mapping;
XX KW DNA purification; protein purification; osteoarthritis; antiarthritic;
XX KW osteopathic; musculoskeletal disease; osteoporosis; endocrine disease;

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periodontal disease; antiinflammatory; mouth disease; burns; injury; peripheral neuropathy; Alzheimers disease; neuroprotective; nootropic; degeneration; parkinsons disease; antiparkinsonian; neurological disease; cerebrovascular ischemia; cerebroprotective; vasotropic; cardiovascular disease; autoimmune disease; immunosuppressive; immune disorder; viral infection; virucide; infection; cancer; cytostatic; neoplasm.

XX OS Homo sapiens.

XX PN W02005049806-A2.

XX PD 02-JUN-2005.

XX PF 11-MAR-2004; 2004WO-US007412.

XX PR 14-MAR-2003; 2003US-00389559.

XX PA (NUVE-) NUVELO INC.

XX PI Tang TY, Wang J, Wang ZW, Zhang J, Ren F, Zhou P, Ma Y;

PI Ghosh M, Xue A, Asundi V, Zhao Q, Wang D, Goodrich R, Chen R;

PI Wehrman T, Weng G, Boyle B;

XX WIPI; 2005-417730/42.

XX N-PSDB; AEA19507.

XX New polynucleotide encoding a polypeptide with biological activity, useful for treating a disease or disorder, e.g. osteoarthritis, burns, CNS and peripheral disease, stroke, autoimmune disorders, viral infection, or cancer.

XX Claim 20; SEQ ID NO 768; 500pp; English.

XX The invention describes a new isolated polynucleotide (I) encoding a polypeptide with biological activity comprising: a nucleotide sequence of SEQ ID NOS: 1-567 (fully defined); a nucleotide sequence that hybridizes to the sequence of (i) under stringent hybridization conditions; or a nucleotide sequence having greater than 99% sequence identity with the sequence of (i). Also described are: a(n) (expression)vector comprising (1); a host cell genetically engineered to comprise (1) operatively, associated with a regulatory sequence that modulates expression of the polynucleotide in the host cell; an isolated polypeptide comprising a sequence of SEQ ID NOS: 568-1134 (fully defined), where the polypeptide is a polypeptide encoded by (1); or a polypeptide encoded by a polynucleotide hybridizing under stringent conditions with any one of SEQ ID NOS: 1-567; a composition comprising the polypeptide of (3) and a carrier; an antibody directed against the polypeptide of (3); a method for detecting (1) in a sample; a method for detecting the polypeptide of (3) in a sample; a method for identifying a compound that binds to the polypeptide of (3); a method of producing the polypeptide of (3); and a collection of polynucleotides, where the collection comprising of at least one of SEQ ID NOS: 1-567. (I) is a polynucleotide comprising any of the sequences of SEQ ID NOS: 1-567 encoding a polypeptide with biological activity, which comprises any of the amino acid sequence of SEQ ID NOS: 568-1134. All sequences are fully defined in the specification. The sequences and methods are useful in diagnostics, forensic, and gene mapping, in identifying of mutations responsible for genetic disorders or other traits, in assessing biodiversity, and for producing many other types of data and products dependent on DNA and amino acid sequences. The composition and method are useful for treating a disease or disorder, e.g. osteoporosis, osteoarthritis, periodontal disease, burns, CNS and peripheral disease, Alzheimer's disease, Parkinson's disease, stroke, autoimmune disorders, viral infection, or cancer. This is the amino acid sequence of a novel polypeptide of the invention.

XX Sequence 194 AA;

Query Match 100.0%; Score 114; DB 9; Length 194;
Best Local Similarity 100.0%; Pred. NO. 1.3e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGNDPVANYNFFPRKPK 19

Db 65 PRGNDPVANYNFFPRKPK 83
|||||

RESULT 18
ADFS9546
ID ADF59546 standard; protein; 445 AA.

XX AC ADF59546;

XX DT 12-FEB-2004 (first entry)

XX DE Human polypeptide sequence SEQ ID NO:1954.

XX KW biological activity; genetic engineering; hybridisation probe; oligomer; primer; chromosome mapping; gene mapping; recombinant protein production; human.

XX OS Homo sapiens.

XX PN W02003080795-A2.

XX PD 02-OCT-2003.

XX PF 09-AUG-2002; 2002WO-US025485.

XX PR 09-AUG-2001; 2001US-0311261P.

XX PA (HYSE-) HYSEQ INC.

XX PI Tang YT, Yang Y, Wang Z, Weng G, Ma Y;

XX WIPI; 2003-876918/81.

XX N-PSDB; ADF58546.

XX New polynucleotides, useful as hybridization probes, oligomers or primers, for chromosome or gene mapping, for the recombinant production of proteins, and for generating antisense DNA or RNA.

XX Claim 20; SEQ ID NO 1954; 571pp; English.

XX The present sequence represents a polypeptide (II) with biological activity, which is encoded by an isolated polynucleotide sequence (I) from the present invention. Also described: (1) a vector comprising (I); (2) an expression vector comprising (I); (3) a host cell genetically engineered to comprise (I) which is operatively associated with a regulatory sequence that modulates expression of (I) in the host cell; (4) a polypeptide (II) encoded by (I); (5) a composition comprising the polypeptide of (4) and a carrier; (6) an antibody directed against the polypeptide of (4); (7) detecting (I) or the polypeptide of (4) in a sample; (8) identifying a compound that binds to the polypeptide of (4); (9) producing the polypeptide of (4); and (10) a collection of polynucleotides comprising at least one of the polynucleotide sequences (I). The polynucleotides (I) can be used as hybridisation probes, oligomers or primers, for chromosome or gene mapping, for the recombinant production of proteins, and for generating antisense DNA or RNA.

XX Sequence 445 AA;

Query Match 100.0%; Score 114; DB 7; Length 445;
Best Local Similarity 100.0%; Pred. NO. 3.2e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGNDPVANYNFFPRKPK 19
|||||

Db 100 PRGNDPVANYNFFPRKPK 118

RESULT 19
AEA90447
ID AEA90447 standard; protein; 462 AA.

XX AEA90447;

```
XX DT 08-SEP-2005 (first entry)
XX DE Human lung specific protein, DEX0486_001.aa.1.
XX KW DNA hybridization; diagnosis; diagnostic; lung tumor; vaccine;
XX KW cytostatic; gene therapy; drug screening.
XX OS Homo sapiens.
XX PN US2005142572-A1.
XX PD 30-JUN-2005.
XX PF 24-MAY-2004; 2004US-00852707.
XX PR 22-MAY-2003; 2003US-0473941P.
XX PA (MACI/) MACINA R A.
XX PA (TURN/) TURNER L R.
XX PA (SUNY/) SUN Y.
XX PI Macina RA, Turner LR, Sun Y;
XX PI WPI; 2005-457785/46.
XX DR
XX PT New nucleic acid molecule from Homo sapiens, useful for identifying,
XX PT diagnosing, monitoring, staging, imaging and treating a patient with lung
XX PT cancer and non-cancerous diseases.
XX PS Claim 12; SEQ ID NO 56; 247pp; English.
XX CC The present invention relates to human nucleic acid molecules that are
XX CC specific to lung cells, lung tissue and/or the lung organ. These lung
XX CC specific nucleic acids may be naturally occurring cDNA, genomic DNA, RNA
XX CC or a fragment, or a non-naturally occurring nucleic acid. Due to
XX CC alternative splicing and transcriptional modification one lung-specific
XX CC gene may encode for multiple lung specific RNA's. Specifically claimed is
XX CC new isolated nucleic acid molecule encoding a protein sequence selected
XX CC from 83 (SEQ ID NO: 56-138) sequences; and a nucleic acid selected from
XX CC 56 (SEQ ID NO: 1-55) sequences. Described is a method of determining the
XX CC presence of a lung specific nucleic acid or protein in a sample; and a
XX CC method of diagnosing or monitoring the presence and metastases of lung
XX CC cancer in a patient. Claimed is a vaccine comprising the polypeptide or
XX CC the nucleic acid encoding the polypeptide. Determining the presence of a
XX CC lung specific nucleic acid in a sample comprises contacting the sample
XX CC with a nucleic acid molecule above which will hybridize to a lung
XX CC specific nucleic acid. A composition consisting of the nucleic acid
XX CC molecule or the polypeptide is useful for treating a patient with lung
XX CC cancer, where the administration induces an immune response against the
XX CC lung cancer cell expressing the nucleic acid molecule or polypeptide. The
XX CC nucleic acid molecule and polypeptide are also useful for identifying,
XX CC diagnosing, monitoring, staging, imaging and treating non-cancerous
XX CC disease states in lung, identifying lung tissue, monitoring and
XX CC identifying and/or designing (ant)agonists of the polypeptide, and for
XX CC gene therapy. The present sequence is a human lung specific protein.
XX SQ Sequence 462 AA;
Query Match 100.0%; Score 114; DB 9; Length 462;
Best Local Similarity 100.0%; Pred. No. 3.4e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 PRCGNPDVANYNFFPRKPK 19
Db 100 PRCGNPDVANYNFFPRKPK 118
RESULT 20
ABG24001
ID ABG24001 standard; protein; 468 AA.
XX AC ABG24001;
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XX DT 18-FEB-2002 (first entry)
XX DE Novel human diagnostic protein #23992.
XX KW Human; chromosome mapping; gene mapping; gene therapy; forensic;
XX KW food supplement; medical imaging; diagnostic; genetic disorder.
XX OS Homo sapiens.
XX PN WO200175067-A2.
XX PD 11-OCT-2001.
XX PF 30-MAR-2001; 2001WO-US008631.
XX PR 31-MAR-2000; 2000US-00540217.
XX PR 23-AUG-2000; 2000US-00649167.
XX PA (HYSE-) HYSEQ INC.
XX PI Drmanac RT, Liu C, Tang YT;
XX PI WPI; 2001-639362/73.
XX DR N-PSDB; AAS88188.
XX PT New isolated polynucleotide and encoded polypeptides, useful in
XX PT diagnostics, forensics, gene mapping, identification of mutations
XX PT responsible for genetic disorders or other traits and to assess
XX PT biodiversity.
XX PS Claim 20; SEQ ID NO 54360; 103pp; English.
XX CC The invention relates to isolated polynucleotide (I) and polypeptide (II)
XX CC sequences. (I) is useful as hybridisation probes, polymerase chain
XX CC reaction (PCR) primers, oligomers, and for chromosome and gene mapping,
XX CC and in recombinant production of (II). The polynucleotides are also used
XX CC in diagnostics as expressed sequence tags for identifying expressed
XX CC genes. (I) is useful in gene therapy techniques to restore normal
XX CC activity of (II) or to treat disease states involving (II). (II) is
XX CC useful for generating antibodies against it, detecting or quantitating a
XX CC polypeptide in tissue, as molecular weight markers and as a food
XX CC supplement. (II) and its binding partners are useful in medical imaging
XX CC of sites expressing (II). (I) and (II) are useful for treating disorders
XX CC involving aberrant protein expression or biological activity. The
XX CC polypeptide and polynucleotide sequences have applications in
XX CC diagnostics, forensics, gene mapping, identification of mutations
XX CC responsible for genetic disorders or other traits to assess biodiversity
XX CC and to produce other types of data and products dependent on DNA and
XX CC amino acid sequences. ABG00010-ABG30377 represent novel human diagnostic
XX CC amino acid sequences of the invention. Note: The sequence data for this
XX CC patent did not appear in the printed specification, but was obtained in
XX CC electronic format directly from WIPO at
XX CC ftp.wipo.int/pub/published_pct_sequences
XX SQ Sequence 468 AA;
Query Match 100.0%; Score 114; DB 4; Length 468;
Best Local Similarity 100.0%; Pred. No. 3.4e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 PRCGNPDVANYNFFPRKPK 19
Db 86 PRCGNPDVANYNFFPRKPK 104
RESULT 21
ABM84057
ID ABM84057 standard; protein; 623 AA.
XX AC ABM84057;
XX DT 18-NOV-2004 (first entry)
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```
XX Human diagnostic and therapeutic pprotein SEQ ID NO:4306.
DE
DE
XX gene therapy; human diagnostic and therapeutic polynucleotide; dithp.
KW
KW
XX Homo sapiens.
OS
XX WO2004023973-A2.
PN
XX 25-MAR-2004.
PD
XX 12-SEP-2003; 2003WO-US028227.
PF
XX 12-SEP-2002; 2002US-0410259P.
PR
XX 12-SEP-2002; 2002US-0410260P.
PR
XX (INCY-) INCYTE CORP.
PA
XX Schmidt JP, Wright RJ, Bruns CM, Marjanovic MM, Shen F;
XX Harthehorne TA, Suchorolski MT, Altus CM, Pitts SJ, Elder LV;
XX Mooney EM, Delegeane AM, Panesar IS, Banville SC, Reddy TP;
XX Stevens KA, Blanchard JL, Panzer SR, Wang X, Au AP, Gerstin EH;
XX Peralta CH, Anderson SB, Rioux P, Shen EJ, Wu MC, Stuve LL;
XX Lagace RE, Spiro PA, Stewart EA, Wingrove J, Vitt UA, Kirtan ES;
XX Xu Y, Kwong M, Policky JL, Hurwitz BL, Ma Y, Jackson JL, Gietzen D;
XX Patury S, Shi X, Suarez CJ;
XX WPI; 2004-329368/30.
DR
XX N-PSDB; ACN42709.
DR
XX New diagnostic and therapeutic polynucleotides and polypeptides, useful
XX in diagnosing a condition, disease or disorder associated with human
XX molecules, e.g. autoimmune or inflammatory disorders, in gene therapy or
XX in gene mapping.
XX
XX Claim 27; Page; 190pp; English.
XX
XX The invention relates to novel diagnostic and therapeutic polynucleotides
XX selected from one of the 2722 sequences defined in the specification. A
XX polynucleotide of the invention may have a use in gene therapy. The human
XX diagnostic and therapeutic polynucleotides (dithp) or polypeptides may be
XX used to diagnose a particular condition, disease or disorder associated
XX with human molecules, e.g. cell proliferative disorders,
XX autoimmune/inflammatory disorder, developmental disorder, endocrine
XX disorder, neurological disorders, gastrointestinal disorders, or
XX infections caused by virus, bacteria, fungi or parasite. The dithp
XX molecules may also be used in genetic mapping, in identifying individuals
XX from minute biological samples, in detecting single nucleotide
XX polymorphisms, as molecular weight markers, and for somatic or germline
XX gene therapy. The present sequence represents a dithp protein of the
XX invention. Note: The sequence data for this patent is not represented in
XX the printed specification, but was obtained in electronic format directly
XX from WIPO at www.wipo.int/pct/en/sequences/listing.htm
XX
XX Sequence 623 AA;
XX
XX Query Match 100.0%; Score 114; DB 8; Length 623;
XX Best Local Similarity 100.0%; Pred. NO. 4.7e-09;
XX Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX QY 1 PRCGNPDVANYNFFPRKPK 19
XX |||||
XX Db 100 PRCGNPDVANYNFFPRKPK 118
XX
XX RESULT 22
XX AAP96143
XX ID AAP96143 standard; protein; 631 AA.
XX
XX AAP96143;
XX
XX 25-MAR-2003 (revised)
XX 09-MAY-1991 (first entry)
XX
XX Query Match 100.0%; Score 114; DB 8; Length 623;
XX Best Local Similarity 100.0%; Pred. NO. 4.7e-09;
XX Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX QY 1 PRCGNPDVANYNFFPRKPK 19
XX |||||
XX Db 100 PRCGNPDVANYNFFPRKPK 118
XX
XX RESULT 22
XX AAP96143
XX ID AAP96143 standard; protein; 631 AA.
XX
XX AAP96143;
XX
XX 25-MAR-2003 (revised)
XX 09-MAY-1991 (first entry)
XX
XX Query Match 100.0%; Score 114; DB 1; Length 631;
XX Best Local Similarity 100.0%; Pred. NO. 4.7e-09;
XX Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX QY 1 PRCGNPDVANYNFFPRKPK 19
XX |||||
XX Db 71 PRCGNPDVANYNFFPRKPK 89
XX
XX RESULT 23
XX AAP91139
XX ID AAP91139 standard; protein; 631 AA.
XX
XX AAP91139;
XX
XX 25-MAR-2003 (revised)
XX 18-DEC-1989 (first entry)
XX
XX Human type IV collagenase (gelatinase).
XX
XX Human type IV collagenase; gelatinase; hypertrophic scars; keloids;
XX intervertebral disc disease; extracellular matrix metalloprotease;
XX bronchial epithelial cells; TBB-1 cells; pGel186.2; type II motif;
XX fibonectin; collagen-binding domain.
XX
XX Homo sapiens.
XX
XX Key Location/Qualifiers
XX FH Domain 1..192
XX FT Domain 193..367
XX FT Duplication 197..254
XX FT Duplication 255..312
XX FT Duplication 313..368
XX FT Domain 368..631
XX
XX Sequence of human type IV collagenase (gelatinase) in pGEL 186.2.
DE
DE
XX Hypertrophic scar; keloid; intervertebral disc disease; enzyme.
KW
KW
XX Homo sapiens.
OS
XX GB2209526-A.
PN
XX 17-MAY-1989.
PD
XX 02-SEP-1988; 88GE-00820803.
PF
XX 04-SEP-1987; 87US-00093421.
PR
XX (UNIW ) UNIV WASHINGTON.
PA
XX Eisen AZ, Goldberg GI;
XX WPI; 1989-147011/20.
DR
XX N-PSDB; AAN91700.
DR
XX DNA encoding human type IV collagenase (gelatinase) - for use in the
XX treatment of hypertrophic scars, keloids and intervertebral disc disease.
XX
XX Disclosure; Fig 3; 36pp; English.
XX
XX The original source of the protein material was H-ras transformed human
XX bronchial epithelial cells (TBB-1). The AA sequence was then used to
XX develop oligonucleotide probes which were used to screen a cDNA library
XX of human skin fibroblast mRNA. The longest clone, pGEL 186.2, represented
XX almost the full gelatinase mRNA sequence except the leader sequence
XX encoding the first few AA's of the signal peptide. (Updated on 25-MAR-
XX 2003 to correct PF field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
XX Sequence 631 AA;
XX
XX Query Match 100.0%; Score 114; DB 1; Length 631;
XX Best Local Similarity 100.0%; Pred. NO. 4.7e-09;
XX Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX QY 1 PRCGNPDVANYNFFPRKPK 19
XX |||||
XX Db 71 PRCGNPDVANYNFFPRKPK 89
XX
XX RESULT 23
XX AAP91139
XX ID AAP91139 standard; protein; 631 AA.
XX
XX AAP91139;
XX
XX 25-MAR-2003 (revised)
XX 18-DEC-1989 (first entry)
XX
XX Human type IV collagenase (gelatinase).
XX
XX Human type IV collagenase; gelatinase; hypertrophic scars; keloids;
XX intervertebral disc disease; extracellular matrix metalloprotease;
XX bronchial epithelial cells; TBB-1 cells; pGel186.2; type II motif;
XX fibonectin; collagen-binding domain.
XX
XX Homo sapiens.
XX
XX Key Location/Qualifiers
XX FH Domain 1..192
XX FT Domain 193..367
XX FT Duplication 197..254
XX FT Duplication 255..312
XX FT Duplication 313..368
XX FT Domain 368..631
XX
```

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PN GB2209526-A.
XX
PD 17-MAY-1989.
XX
XX
XX 02-SEP-1988; 88GB-00820803.
XX
XX 04-SEP-1987; 87US-00093421.
XX
XX (UNIW ) UNIV WASHINGTON.
XX
XX Eisen AZ, Goldberg GI;
XX
XX WPI; 1989-147011/20.
XX
XX DNA encoding human type IV collagenase (gelatinase) - for use in the
XX treatment of hypertrophic scars, keloids and intervertebral disc disease.
XX
XX Claim 2; Fig 6; 36pp; English.
XX
XX Human type IV collagenase (gelatinase). Protein source was H-ras
XX transformed human bronchial epithelial cells (TBE-1). The sequence was
XX determined from clone pGel 186.2 which represents almost the full mRNA
XX sequence. Feature 1 is the N-terminal domain, I; feature 2 is a middle
XX domain, II, which is organised into 3 x 58 amino acid long head to tail
XX repeats (features 4,5 and 6). These show homology to the type II motif
XX collagen binding domain of fibronectin. Feature 3 is the C-terminal
XX domain. The enzyme could be used in the treatment of hypertrophic scars,
XX keloids, and intervertebral disc disease. See also AAN91700. (Updated on
XX 25-MAR-2003 to correct PF field.) (Updated on 25-MAR-2003 to correct PA
XX field.) (Updated on 25-MAR-2003 to correct PI field.)
XX
XX Sequence 631 AA;
XX
Query Match 100.0%; Score 114; DB 1; Length 631;
Best Local Similarity 100.0%; Pred. No. 4.7e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRGPNPDVANYNFFPRKPK 19
Db |||||
71 PRGPNPDVANYNFFPRKPK 89

RESULT 24
AAR07969
ID AAR07969 standard; protein; 631 AA.
XX
XX AAR07969;
XX
XX 25-MAR-2003 (revised)
XX 17-DEC-2001 (revised)
XX 16-JAN-1991 (first entry)
XX
XX Complete type IV collagenase.
XX
XX Type IV collagenase; peptide fragments; metalloproteinase detection;
XX antibodies; metalloproteinase inhibition; angiogenesis; arthritis;
XX tumour growth; metastasis; granulomatous inflammatory conditions;
XX sarcoidosis.
XX
XX Homo sapiens.
XX
XX Key Location/Qualifiers
FH Peptide 1..18
FT /label= 1
FT Peptide 19..33
FT /label= 2
FT Peptide 26..42
FT /label= 3
FT Protein 34..50
FT /label= 4
FT Peptide 51..66
FT /label= 5
FT Peptide 67..89

/label= 7
67..80
/label= 6
69..75
/label= 8
75..94
/label= 9
141..150
/label= 10
299..307
/label= 11
308..318
/label= 12
344..368
/label= 13
371..386
/label= 14
372..375
/label= 15
472..491
/label= 16
USN7317407-N.
21-AUG-1990.
01-MAR-1989; 89US-00317407.
01-MAR-1989; 89US-00317407.
(USSH ) US NAT CANCER INST.
(USDC ) US SEC OF COMMERCE.
XX
XX Liotta LA, Stetlerste W, Krutzsch H;
XX
XX WPI; 1990-290093/38.
XX
XX New type-IV collagenase peptide fragments - used for metallo-proteinase
XX detection and inhibition and for producing antibodies for enzyme
XX detection.
XX
XX Disclosure; Fig 1; -pp; English.
XX
XX Type IV procollagenase was purified from human A2058 melanoma cells. The
XX complete amino acid sequence was determined (see also Hoyhtya, M. et al,
XX (1988) FEBS Letters 233, 109-113). Based on this sequence, peptides were
XX synthesised (see features) having homology with a histidine contg. domain
XX at residues 371-386, a cysteine contg. domain at residues 200-370, the 80
XX residue amino terminus or a region 159 residues from the carboxy
XX terminus. These regions correspond to the domain of the enzyme involved
XX in enzyme activation and interaction of the enzyme with the substrate.
XX The peptides are useful in metalloproteinase detection and inhibition.
XX They can be used in the treatment of inappropriate angiogenesis,
XX arthritis, tumour growth, invasion and metastasis and granulomatous
XX inflammatory conditions such as sarcoidosis. The peptides can be used to
XX produce antibodies. Peptide 6, at concn. of 0.1 mM inhibited 80% of the
XX enzyme activity. See also US7494796-A and WO9010228. (Note: Revised entry
XX submitted to correct the patent number format of US Government-owned NTIS
XX applications to prevent clashes with ongoing US granted patent numbers.
XX For further information please visit the Derwent web site at
XX www.derwent.com/dwpi/updates/ntis_us.html.) (Updated on 25-MAR-2003 to
XX correct PA field.) (Updated on 25-MAR-2003 to correct PI field.)
XX
XX Sequence 631 AA;
XX
Query Match 100.0%; Score 114; DB 2; Length 631;
Best Local Similarity 100.0%; Pred. No. 4.7e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRGPNPDVANYNFFPRKPK 19
Db |||||
71 PRGPNPDVANYNFFPRKPK 89

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RESULT 25
AAW07350
ID AAW07350 standard; protein; 631 AA.
XX
XX AC AAW07350;
XX
XX DT 25-MAR-2003 (revised)
XX DT 16-JUL-1999 (first entry)
XX
XX DE Human type IV matrix metalloprotease protein.
XX
XX KW Matrix metalloprotease; inhibitor; tissue damage; angiogenesis; antibody;
XX KW arthritis; tumour growth; granulomatous inflammatory condition; enzyme;
XX KW metastasis; sarcoidosis.
XX
XX OS Homo sapiens.
XX
XX FH Key Location/Qualifiers
XX FT Misc-difference 452
XX FT /note= "designated in specification as U"
XX
XX PN W09010228-A.
XX
XX PD 07-SEP-1990.
XX
XX PP 01-MAR-1989; 89US-00317407.
XX
XX PR 01-MAR-1989; 89US-00317407.
XX PR 26-FEB-1990; 90US-00488460.
XX
XX PA (USDC ) US SEC OF COMMERCE.
XX PA (USSH ) NAT INST OF HEALTH.
XX
XX PI Liotta LA, Stetlerste W, Krutzsch H;
XX WPI; 1990-290458/38.
XX
XX PT Matrix metalloproteinase peptide(s) - used to inhibit enzyme in treating
XX PT tissue damage caused by activated enzyme.
XX
XX PS Disclosure; Fig 1; 61pp; English.
XX
XX CC This sequence represents a human type IV matrix metalloprotease (MMP)
XX CC zymogen (precursor protein). The invention relates to MMP inhibitor
XX CC peptides which can be used to treat tissue damage caused by activated
XX CC MMPs, e.g. for treating inappropriate angiogenesis, arthritis, tumour
XX CC growth, invasion and metastasis and granulomatous inflammatory conditions
XX CC such as sarcoidosis. Antibodies to the peptides can be used to detect the
XX CC MMPs and can distinguish activated from latent enzyme. (Updated on 25-MAR
XX CC -2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
XX SQ Sequence 631. AA;
XX
XX Query Match 100.0%; Score 114; DB 2; Length 631;
XX Best Local Similarity 100.0%; Pred. NO. 4.7e-09;
XX Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX QY 1 PRCGNPDVANYNFFPRKPK 19
XX DB 71 PRCGNPDVANYNFFPRKPK 89
XX
XX RESULT 26
XX AAW41226
XX ID AAW41226 standard; protein; 631 AA.
XX
XX AC AAW41226;
XX
XX DT 09-JUN-1998 (first entry)
XX
XX DE Human mature matrix metalloprotease-2 (MMP-2) protein sequence.
XX
XX Matrix metalloprotease-2; MMP-2; alpha-v-beta-5 antagonist; treatment;
XX vitronectin receptor; inhibition; angiogenesis; integrin; tumour growth;
XX restenosis; neovascularisation.
XX
XX OS Homo sapiens.
XX
XX PN W09745447-A1.
XX
XX PD 04-DEC-1997.
XX
XX PP 30-MAY-1997; 97WO-US009099.
XX
XX PR 31-MAY-1996; 96US-0015869P.
XX PR 31-MAY-1996; 96US-0018733P.
XX
XX PA (SCRI ) SCRIPPS RES INST.
XX
XX PI Brooke P, Cheres DA, Friedlander M;
XX WPI; 1998-041758/04.
XX
XX DR Packaging material containing polypeptide antagonist of alphav, betas
XX PT integrin - used for inhibition of angiogenesis, and for treating tumours,
XX PT inflammation, eye diseases etc.
XX
XX PS Disclosure; Fig 16; 117pp; English.
XX
XX CC The present sequence represents the mature protein of human matrix
XX CC metalloprotease-2 (MMP-2). Fragments of this protein (AAW41228-33) are
XX CC able to act as alpha-v-beta-5 antagonists. Alpha-v-beta-5 is a
XX CC vitronectin receptor. Inhibitors of alpha-v-beta-5 can inhibit
XX CC angiogenesis. The specification describes a novel labelled package that
XX CC contains an inhibitor of angiogenesis i.e. an alpha-v-beta-5 antagonising
XX CC polypeptide that binds to integrin alpha-v-beta-5 and includes a part of
XX CC the C-terminal domain of MMP. The antagonists are used to inhibit
XX CC angiogenesis in inflamed tissue, in solid tumours or metastases, and in a
XX CC wide range of ocular disorders (e.g. diabetic or other forms of
XX CC retinopathy, neovascular glaucoma, or corneal transplants). They are
XX CC particularly used to induce regression or to inhibit growth of tumours.
XX CC The alpha-v-beta-5 antagonists can also be used to treat restenosis
XX CC caused by migration of smooth muscle cells following angioplasty and to
XX CC reduce blood supply to selected tissues. The antagonists particularly
XX CC inhibit neovascularisation where this is induced by cytokines, e.g.
XX CC transforming growth factor alpha, epidermal growth factor or especially
XX CC vascular endothelial growth factor
XX
XX SQ Sequence 631 AA;
XX
XX Query Match 100.0%; Score 114; DB 2; Length 631;
XX Best Local Similarity 100.0%; Pred. NO. 4.7e-09;
XX Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX QY 1 PRCGNPDVANYNFFPRKPK 19
XX DB 71 PRCGNPDVANYNFFPRKPK 89
XX
XX RESULT 27
XX ADM48668
XX ID ADM48668 standard; protein; 631 AA.
XX
XX AC ADM48668;
XX
XX DT 03-JUN-2004 (first entry)
XX
XX DE Human matrix metalloproteinase-2 (MMP-2) protein.
XX
XX KW Cancer; metastasis; matrix metalloproteinase-2; MMP-2; vaccine;
XX KW immune response; gene therapy; cytostatic; enzyme; human.
XX
XX OS Homo sapiens.
XX

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PN US2003139345-A1.
 XX 24-JUL-2003.
 PD 23-JAN-2003; 2003US-00350258.
 XX 23-JAN-2002; 2002US-0351317P.
 PF (NETK/) NETKE S.
 XX (NIED/) NIEDZWIECKI A.
 PA (RATH/) RATH M.
 XX Netke S, Niedzwiecki A, Rath M;
 XX WPI; 2003-897356/82.
 DR New synthetic oligopeptide, useful for blocking or treating cancer
 XX invasion and metastases in a human patient, particularly as a vaccine for
 PT treating or preventing diagnosing brain cancer, lung cancer, skin cancer
 PT or breast cancer.
 XX Example 1; Fig 1; 1lpp; English.
 PS The present invention relates to novel synthetic oligopeptides effective
 XX in blocking cancer invasion and metastasis. The invention relates to
 CC matrix metalloproteinase-2 (MMP-2) peptides. The synthetic oligopeptides
 CC are useful as pharmaceutical compositions for blocking or treating cancer
 CC invasion and metastases in a human patient. In particular, they are
 CC useful for treating brain cancer, lung cancer, skin cancer or breast
 CC cancer. The oligopeptides are also useful as vaccines for preventing
 CC these cancers, enhancing immune response or raising antibodies for assays
 CC used to diagnose diseases involving matrix metalloproteinases or clinical
 CC monitoring of the progression or regression of disease. They are also
 CC useful in gene therapy. The present sequence is the human MMP-2 protein.
 XX Sequence 631 AA;
 SQ
 Query Match 100.0%; Score 114; DB 7; Length 631;
 Best Local Similarity 100.0%; Pred. No. 4.7e-09;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRCGNPDVANYNFFPRKPK 19
 Db |||||
 71 PRCGNPDVANYNFFPRKPK 89
 RESULT 28
 ADT05996
 ID ADT05996 standard; protein; 631 AA.
 XX AC ADT05996;
 XX 30-DEC-2004 (first entry)
 XX Human mature matrix metalloprotease (MMP-2).
 DE
 XX Angiogenesis inhibitor; integrin alpha-V beta-3 antagonist;
 KW vitronectin receptor antagonist; neovascularisation; cancer; tumour;
 KW inflammation; rheumatoid arthritis; retina; diabetic retinopathy;
 KW restenosis; smooth muscle cell migration; angioplasty; antiangiogenic;
 KW cyostatic; antiinflammatory; antiarthritic; antirheumatic;
 KW ophthalmological; antidiabetic; vasotropic; muscular-gen.;
 KW peptidomimetic; matrix metalloprotease 2; MMP-2; gelatinase; human;
 KW enzyme.
 XX Homo sapiens.
 OS
 XX Key Location/Qualifiers
 FH Region 410..631
 FT /note= "Corresponds to SEQ ID NO:17"
 FT 439..631
 FT /label = Hemopexin domain
 FT /note = Corresponds to SEQ ID NO:18

FT Region 439..546
 FT /note= "Corresponds to SEQ ID NO:20"
 FT Region 439..512
 FT /note= "Corresponds to SEQ ID NO:19"
 FT Region 510..631
 FT /note= "Corresponds to SEQ ID NO:21"
 FT Region 543..631
 FT /note= "Corresponds to SEQ ID NO:22"
 XX WO2004087057-A2.
 PN 14-OCT-2004.
 XX 26-MAR-2004; 2004WO-US009321.
 PD 28-MAR-2003; 2003US-00402212.
 XX (SCRI) SCRIPPS RES INST.
 PA Brooks PC, Cheresch DA;
 XX WPI; 2004-737508/72.
 DR Administration of composition comprising organic peptidomimetic alpha-v
 XX beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue
 CC angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
 CC Example 2; Fig 7A-C; 184pp; English.
 CC The invention relates to a method of inhibiting angiogenesis in a tissue
 CC by the administration of a composition comprising an organic
 CC peptidomimetic antagonist of integrin alpha-V beta-3 (vitronectin
 CC receptor). The integrin alpha-V beta-3 antagonist and compositions
 CC containing it are useful for inhibiting angiogenesis in a variety of
 CC medical conditions. The antagonist may be used to induce the regression
 CC of solid tumours or solid tumour metastases; to inhibit the growth of
 CC solid tumours undergoing neovascularisation; to treat inflamed tissue in
 CC which neovascularisation is occurring (e.g., in rheumatoid arthritis); to
 CC treat neovascularisation in retinal tissue (e.g., in diabetic
 CC retinopathy); to treat restenosis in a tissue by inhibiting smooth muscle
 CC cell migration (such as that which occurs following angioplasty); and to
 CC reduce the blood supply to a tissue required to support new growth of the
 CC tissue. The present sequence represents human mature matrix
 CC metalloprotease 2 (MMP-2, gelatinase) used in an example of the
 CC invention.
 XX Sequence 631 AA;
 SQ
 Query Match 100.0%; Score 114; DB 8; Length 631;
 Best Local Similarity 100.0%; Pred. No. 4.7e-09;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRCGNPDVANYNFFPRKPK 19
 Db |||||
 71 PRCGNPDVANYNFFPRKPK 89
 RESULT 29
 ADT05997
 ID ADT05997 standard; protein; 633 AA.
 XX AC ADT05997;
 XX 30-DEC-2004 (first entry)
 XX Mouse mature matrix metalloprotease (MMP-2).
 DE
 XX Angiogenesis inhibitor; integrin alpha-V beta-3 antagonist;
 KW vitronectin receptor antagonist; neovascularisation; cancer; tumour;
 KW inflammation; rheumatoid arthritis; retina; diabetic retinopathy;
 KW restenosis; smooth muscle cell migration; angioplasty; antiangiogenic;
 KW cyostatic; antiinflammatory; antiarthritic; antirheumatic;
 KW ophthalmological; antidiabetic; vasotropic; muscular-gen.;

KW peptidomimetic; matrix metalloprotease 2; MMP-2; gelatinase; mouse;
 XX murine; enzyme.
 XX
 OS Mus sp.
 XX
 FH Key Location/Qualifiers
 FT Domain 441..633
 FT /label = Hemopexin_domain
 XX
 XX WO2004087057-A2.
 XX
 XX 14-OCT-2004.
 XX
 XX 26-MAR-2004; 2004WO-US009321.
 XX
 XX 28-MAR-2003; 2003US-00402212.
 XX
 XX (SCRI) SCRIPPS RES INST.
 XX
 XX Brooks PC, Cheres DA;
 XX
 XX WPI; 2004-737508/72.
 XX
 XX Administration of composition comprising organic peptidomimetic alpha-v
 FT beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue
 PT angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
 XX
 XX Example 2; Fig 7A-C; 184pp; English.
 XX
 XX The invention relates to a method of inhibiting angiogenesis in a tissue
 CC by the administration of a composition comprising an organic
 CC peptidomimetic antagonist of integrin alpha-v beta-3 (vitronectin
 CC receptor). The integrin alpha-v beta-3 antagonist and compositions
 CC containing it are useful for inhibiting angiogenesis in a variety of
 CC medical conditions. The antagonist may be used to induce the regression
 CC of solid tumours or solid tumour metastases; to inhibit the growth of
 CC solid tumours undergoing neovascularisation; to treat inflamed tissue in
 CC which neovascularisation is occurring (e.g., in rheumatoid arthritis); to
 CC treat neovascularisation in retinal tissue (e.g., in diabetic
 CC retinopathy); to treat restenosis in a tissue by inhibiting smooth muscle
 CC cell migration (such as that which occurs following angioplasty); and to
 CC reduce the blood supply to a tissue required to support new growth of the
 CC tissue. The present sequence represents mouse mature matrix
 CC metalloprotease 2 (MMP-2, gelatinase) used in an example of the
 CC invention.
 XX
 XX Sequence 633 AA;
 SQ
 Query Match 100.0%; Score 114; DB 8; Length 633;
 Best Local Similarity 100.0%; Pred. No. 4.8e-09;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRCGNPDVANYNFFPRKPK 19
 DB 71 PRCGNPDVANYNFFPRKPK 89
 RESULT 30
 AAB20490
 ID AAB20490 standard; protein; 644 AA.
 XX
 AC AAB20490;
 XX
 DT 21-JUN-2001 (first entry)
 XX
 XX Human matrix metalloprotease-2 (MMP-2).
 DE
 XX Matrix metalloprotease-2; MMP-2; human; pain; analgesic;
 XX nerve tissue damage; stroke; haemorrhage; reperfusion injury;
 KW cerebral ischaemia; cerebral infarction; narcotic tolerance;
 KW narcotic withdrawal.
 XX
 XX Homo sapiens.
 OS

XX WO200126671-A1.
 XX
 XX 19-APR-2001.
 XX
 XX 11-OCT-2000; 2000WO-US027949.
 XX
 XX 12-OCT-1999; 99US-0158787P.
 XX
 XX (SMIK) SMITHKLINE BEECHAM CORP.
 XX (SMIK) SMITHKLINE BEECHAM PLC.
 XX
 XX Romanic Arnold A, Barone FC, Bingham S;
 XX
 XX WPI; 2001-290654/30.
 XX N-PSDB; AAF30807.
 XX
 XX Polypeptide for the treatment of pain and the reduction of tissue damage
 FT comprises an inhibitor of human matrix metalloprotease.
 XX
 XX Claim 1; Fig 2; 61pp; English.
 XX
 XX The present sequence is that of human matrix metalloprotease-2 (MMP-2),
 CC previously known as 72 kDa gelatinase and gelatinase A. MMP-2 is capable
 CC of degrading the extracellular matrix components of the basement
 CC membrane. The invention relates to methods for treating pain in a patient
 CC by administering a dual inhibitor of MMP-2 and MMP-9 (see AAB20491). The
 CC administration of an inhibitor of MMP-2 is useful for treating nerve
 CC tissue damage (claimed), where the patient is suffering from a disease or
 CC disorder selected from stroke, haemorrhage, reperfusion injury, cerebral
 CC ischaemia and cerebral infarction (claimed). The method is useful for
 CC enhanced or exaggerated sensitivity to acute pain, burn pain, atypical
 CC facial pain, neuropathic pain, back pain, complex regional pain syndrome
 CC I and II, arthritic pain, sports injury pain, pain related to virus
 CC infection, post-herpetic neuralgia, phantom limb pain, labour pain,
 CC cancer pain, post-chemotherapy pain, post-operative pain, post-stroke
 CC pain, physiological pain, inflammatory pain, acute inflammatory
 CC conditions/visceral pain, neuralgia, painful diabetic retinopathy,
 CC traumatic nerve injury, and tolerance to narcotics or withdrawal from
 CC narcotics (claimed). MMP-2 polypeptides can also be used to screen for
 CC agonist or antagonist (inhibitor) compounds
 XX
 XX Sequence 644 AA;
 SQ
 Query Match 100.0%; Score 114; DB 4; Length 644;
 Best Local Similarity 100.0%; Pred. No. 4.9e-09;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRCGNPDVANYNFFPRKPK 19
 DB 84 PRCGNPDVANYNFFPRKPK 102
 RESULT 31
 AAR06420
 ID AAR06420 standard; protein; 660 AA.
 XX
 AC AAR06420;
 XX
 DT 25-MAR-2003 (revised)
 DT 13-DEC-1990 (first entry)
 XX
 XX Type IV collagenase cDNA product.
 DE
 XX hypertrophic scars; keloids; intervertebral disc disease; ds.
 KW
 XX Homo sapiens.
 OS
 XX US4923818-A.
 PN
 XX 08-MAY-1990.
 PD
 XX

PF 15-MAY-1989; 89US-00352069.
 PR 15-MAY-1989; 89US-00352069.
 XX (UNIW) UNIV WASHINGTON.
 XX Goldberger GL, Eisen AZ;
 XX WPI; 1990-245482/32.
 DR N-PSDB; AAQ05620.
 XX Recombinant human type IV collagenase - used in treatment of hypertrophic
 PT scars, keloids and intervertebral disc disease.
 XX Claim 3; Fig 9; 23pp; English.
 XX cDNA clone enables production of type IV collagenase, useful in
 CC catalyzing cleavage of extracellular matrix macromolecules, and in
 CC treatment of hypertrophic scars, keloids and intervertebral disc disease.
 CC (Updated on 25-MAR-2003 to correct PA field.)
 XX
 SQ Sequence 660 AA;
 Query Match 100.0%; Score 114; DB 2; Length 660;
 Best Local Similarity 100.0%; Pred. No. 5e-09;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRCGNPDVANYNFFPRKPK 19
 |||||
 Db 100 PRCGNPDVANYNFFPRKPK 118
 |||||
 RESULT 32
 AAB84607
 ID AAB84607 standard; protein; 660 AA.
 XX
 AC AAB84607;
 XX
 DT 05-SEP-2001 (first entry)
 XX
 DE Amino acid sequence of matrix metalloproteinase gelatinase A.
 XX
 KW Growth factor; protein inhibitor; protease; damaged tissue;
 KW platelet-derived growth factor; PDGF; fibroblast growth factor; FGF;
 KW connective tissue derived growth factor; CTGF; chrysalin; VEGF;
 KW keratinocyte-derived growth factor; KGF; epidermal growth factor; EGF;
 KW transforming growth factor-beta; TGF-beta; matrix metalloproteinase; MMP;
 KW granulocyte macrophage colony stimulating factor; GM-CSF; uPA;
 KW vascular endothelial growth factor; urokinase plasminogen activator;
 KW dermal ulcer; wound.
 XX
 OS Homo sapiens.
 XX
 PN WO200149309-A2.
 XX
 PD 12-JUL-2001.
 XX
 XX 21-DEC-2000; 2000WO-IB001935.
 XX
 XX 29-DEC-1999; 99GB-00030768.
 XX
 XX (PFIZ) PFIZER LTD.
 XX (PFIZ) PFIZER INC.
 XX
 XX Davies MJ, Huggins JP, McIntosh FS, Occleston NL;
 XX WPI; 2001-418351/44.
 DR N-PSDB; AAH28222.
 XX
 XX Composition for the treatment of damaged tissue i.e. chronic wounds and
 PT dermal ulcers comprises an inhibitor agent i.e. a protease and a growth
 PT factor.

PS Disclosure; Page 552; 572pp; English.
 XX
 CC The specification describes a pharmaceutical composition, comprising a
 CC growth factor, an inhibitor agent, i.e. a protease. The inhibitor agent
 CC inhibits the action of at least one specific adverse protein, i.e. a
 CC protease, that is upregulated in a damaged tissue such as a wound
 CC environment. Growth factors which are included in the composition of the
 CC invention are platelet-derived growth factor (PDGF), fibroblast growth
 CC factor (FGF), connective tissue derived growth factor (CTGF),
 CC keratinocyte-derived growth factor (KGF), transforming growth factor-beta
 CC (TGF-beta), granulocyte macrophage colony stimulating factor (GM-CSF),
 CC epidermal growth factor (EGF), vascular endothelial growth factor (VEGF),
 CC and chrysalin. Inhibitors which are included in the composition of the
 CC invention include inhibitors of urokinase-type plasminogen activator
 CC (uPA) and matrix metalloproteinase (MMP). The composition is useful for
 CC the treatment of chronic damaged tissue, i.e. wounds and dermal ulcers.
 CC The present sequence represents a human MMP-2, and is used to produce the
 CC composition of the invention
 XX
 SQ Sequence 660 AA;
 Query Match 100.0%; Score 114; DB 4; Length 660;
 Best Local Similarity 100.0%; Pred. No. 5e-09;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRCGNPDVANYNFFPRKPK 19
 |||||
 Db 100 PRCGNPDVANYNFFPRKPK 118
 |||||
 RESULT 33
 AAE10431
 ID AAE10431 standard; protein; 660 AA.
 XX
 AC AAE10431;
 XX
 DT 10-DEC-2001 (first entry)
 XX
 DE Human matrix metalloproteinase-2 (MMP-2) protein.
 XX
 KW Human; matrix metalloproteinase; MMP-2; hair growth; antisense therapy;
 KW endopeptidase; skin cell; breast cancer; hair follicle; chromosome 11q22.
 XX
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Peptide 1..27 /label= Signal_peptide
 FT Protein 28..660 /label= Mature_MMP_2_protein
 FT Domain 100..106 /label= Cysteine_switch_domain
 FT Domain 171..195 /note= "Zinc and calcium binding domain"
 XX
 PN WO200166766-A2.
 XX
 PD 13-SEP-2001.
 XX
 XX 06-MAR-2001; 2001WO-US007167.
 XX
 XX 06-MAR-2000; 2000US-0187196P.
 PR
 XX (DARW-) DARWIN MOLECULAR CORP.
 XX (SCHA/) SCHATZMAN R.
 XX Fajardo M, Wang K, Smith R, Moss P;
 XX WPI; 2001-582276/65.
 DR
 XX Novel isolated matrix metalloproteinase-25 nucleic acid molecule and
 PT proteins encoded by them whose inhibition is useful for modulation of
 PT hair growth in mammals.

XX Example 2; Fig 3; 119pp; English.

XX The present sequence is human matrix metalloproteinase (MMP)-2 protein

CC used in the exemplification of the invention. MMP-25 DNA is located on

CC chromosome 11q22. Matrix metalloproteinases are a family of zinc

CC dependent endopeptidases that function extracellularly to degrade

CC proteins typically found in the extracellular matrix. MMP-25 is expressed

CC in skin cells of mammals, particularly in breast cells and hair

CC follicles. MMP-25 DNA is useful for identifying a nucleic acid molecule

CC encoding all or part of MMP by hybridising MMP-25 to a nucleic acid

CC sample and identifying a sequence that hybridises in the nucleic acid

CC sample. The identification step involves performing polymerase chain

CC reaction (PCR) to amplify the hybridising sequence. MMP-25 antibody is

CC useful for identifying type 25 MMP. MMP-25 protein inhibitors may be used

CC to modulate hair growth and breast cancer in a mammal

XX SQ Sequence 660 AA;

Query Match 100.0%; Score 114; DB 4; Length 660;

Best Local Similarity 100.0%; Pred. No. 5e-09;

Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGNGPDVANYNFFPRKPK 19

Db 100 PRGNGPDVANYNFFPRKPK 118

RESULT 34

ABB79413

ID ABB79413 standard; protein; 660 AA.

AC ABB79413;

XX 08-JUL-2002 (first entry)

XX Human matrix metalloproteinase 2 protein.

XX Human: matrix metalloproteinase-2; MMP-2; enzyme; thrombolytic;

KW anticoagulant; cardiac; antiarteriosclerotic; cytostatic; osteopathic;

KW antiinflammatory; antibacterial; virucide; fungicide; antipsoriatic;

KW vulnery; cerebroprotective; antianginal; ophthalmological;

KW antirheumatic; antiarthritic; antitumor; vasotropic; nephrotropic;

KW alpha-v-beta-3 integrin receptor; thrombosis; tumour; osteoporosis;

KW infection; veterinary medicine; rheumatoid arthritis; Crohn's disease;

KW antimicrobial; antiseptic.

XX OS Homo sapiens.

XX Key Location/Qualifiers

PH Domain 466..660

FT Binding-site 489..497

FT /label= PEX

FT Binding-site 570..585

FT /label= alpha-v-beta-3_integrin_receptor_binding_site

FT Binding-site 588..597

FT /label= alpha-v-beta-3_integrin_receptor_binding_site

XX WO200220566-A2.

XX 14-MAR-2002.

XX 28-AUG-2001; 2001WO-EP009899.

XX 07-SEP-2000; 2000DE-01044325.

XX (MERE) MERCK PATENT GMBH.

XX Jonczyk A, Diefenbach B, Groth U, Zischinsky G;

XX WPI; 2002-329868/36.

XX

PT New matrix metalloproteinase-2 derivative peptides, are alpha-v-beta-3

PT integrin receptor inhibitors useful e.g. for treating thrombosis, cardiac

PT infarction, tumors, osteoporosis, inflammation or infections.

XX Disclosure; Page 11; 35pp; German.

XX The invention relates to peptides (ABB79414-ABB79426) derived from the C-

CC terminal fragment PEX of matrix metalloproteinase-2 (MMP-2). Matrix MMP-2

CC derivatives of formula X-Y-Z (I) and their salts and solvates are

CC described. X = H, 1-10C alkanoyl or peptide fragment consisting of 1-20

CC naturally occurring amino acid residues; Y = peptide fragment consisting of 1-20

CC from the sequence region 466-660 of human Pro-MMP-2; and Z = OH, NH 2, NH

CC -1-10C alkyl N(1-10C alkyl) 2 or peptide fragment consisting of 1-20

CC naturally occurring amino acid residues. Primary amino groups are

CC optionally protected conventionally. The peptides and MMP-2 derivatives

CC are used for combating diseases involving interaction of ligands

CC (specifically MMP-2) with the alpha-v-beta-3 integrin receptor,

CC especially pathological processes supported or propagated by

CC angiogenesis, thrombosis, cardiac infarction, coronary heart disease,

CC arteriosclerosis, tumors, osteoporosis, fibrosis, inflammation,

CC infections, psoriasis or wound healing deficiency. More generally the

CC peptides and MMP-2 derivatives are useful in human and veterinary

CC medicine for the treatment and/or prophylaxis of thrombosis, myocardial

CC infarction, apoplexy, angina pectoris, tumour diseases, osteolytic

CC diseases (e.g. osteoporosis or hypercalcaemia), pathological angiogenic

CC diseases (e.g. inflammation), ophthalmological diseases (e.g. diabetic

CC retinopathy, macular degeneration, myopia, ocular histoplasmosis or

CC rubeotic glaucoma), rheumatoid arthritis, osteoarthritis, ulcerative

CC colitis, Crohn's disease, atherosclerosis, psoriasis, restenosis after

CC angioplasty, viral, bacterial or fungal infections, acute renal failure

CC or wound healing deficiency; as antimicrobial/antiseptic agents in

CC operations involving biomaterials, implants, catheters or cardiac

CC pacemakers; or as diagnostic agents or reagents. The present sequence is

CC that of the human MMP-2 protein

XX SQ Sequence 660 AA;

Query Match 100.0%; Score 114; DB 5; Length 660;

Best Local Similarity 100.0%; Pred. No. 5e-09;

Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGNGPDVANYNFFPRKPK 19

Db 100 PRGNGPDVANYNFFPRKPK 118

RESULT 35

ABB90738

ID ABB90738 standard; protein; 660 AA.

AC ABB90738;

XX 30-MAY-2002 (first entry)

XX Human Tumour Endothelial Marker polypeptide SEQ ID NO 208.

XX Human; mouse; rat; TEM; tumour endothelial marker; NEM; PEM; cytostatic;

KW normal endothelial marker; pan-endothelial marker; immunostimulant;

KW antiangiogenic; tumour; neoangiogenesis; vascularised tumour;

KW polycystic kidney disease; diabetes; retinopathy; rheumatoid arthritis;

KW psoriasis.

XX OS Homo sapiens.

XX WO200210217-A2.

XX 07-FEB-2002.

XX 01-AUG-2001; 2001WO-US024031.

XX 02-AUG-2000; 2000US-0222599P.

XX 11-AUG-2000; 2000US-0224360P.

XX 11-APR-2001; 2001US-0282850P.

XX PA (UYJO) UNIV JOHNS HOPKINS.
XX PI St Croix B, Kinzler KW, Vogelstein B;
XX DR WPI; 2002-291856/33.
XX DR N-PSDB; ABL92092.
XX PT An isolated molecule comprising an antibody variable region which
PT specifically binds to an extracellular domain of a tumor endothelial
PT marker (TEM) protein, useful for inhibiting tumor growth.
XX PS Claim 54; Page 166-168; 331pp; English.
XX CC The invention relates to an isolated molecule comprising an antibody
CC variable region which specifically binds to an extracellular domain of a
CC tumour endothelial marker (TEM) protein selected from ABB90732, ABB90740,
CC ABB90749, ABB90750 and ABB90769. The antibodies which bind to TEM
CC proteins have cytostatic, immunostimulant and antiangiogenic activity.
CC They are useful for inhibiting tumour growth, neoangiogenesis in subjects
CC bearing a vascularised tumour, polycystic kidney disease, diabetic
CC retinopathy, rheumatoid arthritis and psoriasis. Human, mouse and rat TEM
CC genes and the encoded proteins (ABL92075-ABL92141 and ABB90721-ABB90789)
CC are disclosed, as are marker oligonucleotide sequences; tumour
CC endothelial markers (TEM) ABL91956-ABL92041 and ABL92143-ABL92191; normal
CC endothelial markers (NEM) ABL92042-ABL92074; and pan-endothelial markers
CC (PEM) ABL91903-ABL91995
XX CC (PEM) ABL91903-ABL91995
XX CC Sequence 660 AA;
XX SQ

Query Match 100.0%; Score 114; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 PRGPNPDVANYNFFPRPKP 19
DB 100 PRGPNPDVANYNFFPRPKP 118

RESULT 36
AAU84348
ID AAU84348 standard; protein; 660 AA.
XX AC AAU84348;
XX DT 08-MAY-2002 (first entry)
XX DE Protein MMP2 differentially expressed in breast cancer tissue.
XX KW Human; diagnosis of breast cancer; endometrial cancer; breast tumour;
XX KW MAI; mitotic activity index; cytostatic.
XX OS Homo sapiens.
XX PN WO200210436-A2.
XX PD 07-FEB-2002.
XX PF 27-JUL-2001; 2001WO-US023642.
XX PR 28-JUL-2000; 2000US-0222093P.
XX PA (BGHM) BRIGHAM & WOMENS HOSPITAL INC.
XX PA (BAAK/) BAAK J.
XX PI Baak J, Mutter GL;
XX PT WPI; 2002-180084/23.
XX DR N-PSDB; ABK35568.
XX PT Diagnosing breast cancer comprises determining expression of nucleic acid
PT molecules or expression products that are differentially expressed in
PT normal and malignant tissue.

XX PS Claim 37; Page 185-187; 219pp; English.
XX CC The present invention relates to a method for diagnosing breast cancer in
XX CC a subject suspected of having endometrial cancer. The method comprises
XX CC determining the expression of a set of human genes or expression products
XX CC in an endometrial sample suspected of being cancerous. The human genes of
XX CC the invention are differentially expressed in breast tumours
XX CC characterised as high or low MAI (mitotic activity index). These sets of
XX CC genes can be used to discriminate between high and low MAI breast
XX CC tumours. The invention also provides DNA and protein microarrays for
XX CC analysing the expression of the human genes and their protein products.
XX CC The methods and arrays are useful for the diagnosis and prognosis of
XX CC endometrial cancer, selecting and monitoring treatment regimes, and
XX CC identification of compounds useful for the treatment of endometrial
XX CC cancer. AAU84311-AAU84361 represent the human proteins of the invention
XX CC that are differentially expressed in breast cancer tissue
XX SQ Sequence 660 AA;
XX

Query Match 100.0%; Score 114; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 PRGPNPDVANYNFFPRPKP 19
DB 100 PRGPNPDVANYNFFPRPKP 118

RESULT 37
ABU54445
ID ABU54445 standard; protein; 660 AA.
XX AC ABU54445;
XX DT 12-MAR-2003 (first entry)
XX DE Human tumour endothelial marker TEM 7.
XX KW Human; endothelial cell; EC; tumour endothelial cell; TEM; NEM;
XX KW Tumour endothelial marker; normal endothelial marker; PEM;
XX KW pan-endothelial marker; polycystic kidney disease; psoriasis;
XX KW diabetic retinopathy; rheumatoid arthritis; tumour angiogenesis;
XX KW neoangiogenesis; immune response; cytostatic; antidiabetic;
XX KW ophthalmological; antirheumatic; antiarthritic; antipsoriatic.
XX OS Homo sapiens.
XX PN WO200283874-A2.
XX PD 24-OCT-2002.
XX PF 10-APR-2002; 2002WO-US008253.
XX PR 11-APR-2001; 2001US-0282850P.
XX PR 06-FEB-2002; 2002US-0354262P.
XX PA (UYJO) UNIV JOHNS HOPKINS.
XX PI Carson-Walter E, St Croix B, Kinzler KW, Vogelstein B;
XX XX WPI; 2003-093016/08.
XX DR N-PSDB; ABX72017.
XX PT New purified human transmembrane protein, designated as tumor endothelial
XX PT marker (TEM) 3, useful for detecting, diagnosing or treating tumors,
XX PT polycystic kidney disease, diabetic retinopathy, rheumatoid arthritis or
XX PT psoriasis.
XX PS Disclosure; Page 173-174; 374pp; English.
XX CC The present invention relates to a novel method for the isolation of
XX CC endothelial cells (ECs), and the identification of genes expressed in

CC normal and tumour ECs. Tumour endothelial marker (TEM), normal
 CC endothelial marker (NEM), and pan-endothelial marker (PEM) genes are
 CC identified in human ECs. The human EC marker proteins and the
 CC polynucleotide sequences encoding them are useful for detecting,
 CC diagnosing or treating tumours as well as polycystic kidney disease,
 CC diabetic retinopathy, rheumatoid arthritis, and psoriasis. They are also
 CC useful for inhibiting neovascularisation or tumour angiogenesis, for
 CC inducing an immune response to tumour endothelial cells in a patient, or
 CC for identifying candidate drugs for treating tumours. The present
 CC sequence represents a human TEM or NEM protein of the invention
 XX
 XX Sequence 660 AA;

Query Match 100.0%; Score 114; DB 6; Length 660;
 Best Local Similarity 100.0%; Pred. No. 5e-09;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVANYNPPRPKP 19
 |||||
 Db 100 PRCGNPDVANYNPPRPKP 118

RESULT 38
 ABP97136
 ID ABP97136 standard; protein; 660 AA.

XX AC ABP97136;
 XX
 DT 24-JUN-2003 (first entry)
 XX
 DE Human matrix metalloproteinase 2 protein SEQ ID NO:14.
 XX
 KW Human; matrix metalloproteinase; MMP; anticancer; wound healing;
 KW matrix metalloproteinase inhibitor; antitumour; antiangiogenic; cardiant;
 KW vascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic;
 KW vulnery; cerebroprotective; antidiabetic; ophthalmological; tumour;
 KW dermatological; metastatic; non-metastatic; vascularised; heart disease;
 KW non-vascularised; surgical incision; chronic wound; stroke; angiogenesis;
 KW macular degeneration; diabetic retinopathy; cleavage region.
 XX
 OS Homo sapiens.

XX WO2003018748-A2.
 XX
 XX 06-MAR-2003.
 XX
 XX 15-AUG-2002; 2002WO-US026319.

XX 16-AUG-2001; 2001US-0312726P.
 XX 21-DEC-2001; 2001US-00032376.
 XX 21-MAY-2002; 2002US-00153185.
 XX
 XX (KIMB) KIMBERLY-CLARK WORLDWIDE INC.

XX Quirk S, Weart IF;

XX WPI; 2003-381408/36.

XX Anti-angiogenic composition comprising peptide inhibitor of matrix
 PT metalloproteinase, useful for decreasing the expression of vascular
 PT endothelial growth factor and treating cancers and tissue injuries.

XX Example 1; Page 43-44; 103pp; English.

XX The present invention describes an anti-angiogenic composition (I) for
 CC inhibiting expression of vascular endothelial growth factor (VEGF). (I)
 CC comprises an effective amount of a peptide inhibitor of matrix
 CC metalloproteinase (MMP), where the peptide can inhibit the expression of
 CC VEGF. (I) has cytostatic, vulnery, cardiant, cerebroprotective,
 CC antidiabetic, ophthalmological and dermatological activities. (I) can be
 CC used for inhibiting expression of VEGF, and so can be used for inhibiting
 CC growth of tumours and diminishing tumours size. The tumour can be
 CC metastatic, non-metastatic, vascularised, non-vascularised, hard or soft.

CC (I) is also useful for treating injuries including wounds, surgical
 CC incisions, chronic wounds, heart diseases and stroke. (I) is also useful
 CC for treating disorders characterised by excessive angiogenesis e.g.
 CC macular degeneration and diabetic retinopathy. The present sequence
 CC represents the human MMP-2 protein, which is used in the exemplification
 XX of the present invention

XX Sequence 660 AA;

Query Match 100.0%; Score 114; DB 6; Length 660;
 Best Local Similarity 100.0%; Pred. No. 5e-09;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVANYNPPRPKP 19
 |||||
 Db 100 PRCGNPDVANYNPPRPKP 118

RESULT 39
 AAO16608
 ID AAO16608 standard; protein; 660 AA.

XX AC AAO16608;

XX 08-MAY-2003 (first entry)

XX Human matrix metalloproteinase 2 (MMP2) gelatinase protein.

XX Human; enzyme; crystalline polypeptide; matrix metalloproteinase 9; MMP9;
 KW gelatinase; metalloproteinase mediated disease; drug design; arthritis;
 KW three-dimensional structure; MMP9 inhibitor; tumour growth;
 KW cancer metastasis; osteoarthritis; atherosclerosis; restenosis;
 KW periodontitis; multiple sclerosis; glomerulonephritis; MMP9 modulator;
 KW graft-versus-host disease; non-insulin dependent diabetes; MMP2;
 KW matrix metalloproteinase 2.

XX Homo sapiens.

XX WO2003002729-A1.

XX 09-JAN-2003.

XX 24-JUN-2002; 2002WO-SE001266.

XX 27-JUN-2001; 2001SE-00002298.

XX (ASTR) ASTRAZENECA AB.

XX Jepson H, Minshull C, Paupit R, Rowsell S;

XX WPI; 2003-201502/19.

XX Novel crystalline form of a polypeptide corresponding to the catalytic
 PT domain of matrix metalloproteinase 9 protein, useful for selecting or
 PT designing chemical modulators which are used for treating diabetes,
 PT cancer, arthritis.

XX Disclosure; Fig 7; 227pp; English.

XX The invention comprises a crystalline form of a polypeptide corresponding
 CC to the catalytic domain of matrix metalloproteinase 9 (MMP9) protein - a
 CC gelatinase. The crystalline polypeptide of the invention is useful for
 CC treating a metalloproteinase mediated disease or condition in a warm-
 CC blooded animal. The crystalline polypeptide is also useful for
 CC determining the three-dimensional structure of the MMP9 catalytic domain
 CC to high resolution. The three-dimensional structure of the MMP9 catalytic
 CC domain is useful for rational drug design, and the atomic coordinates of
 CC the catalytic domain of MMP9 are useful for selecting or designing
 CC chemical modulators (preferably inhibitors) of MMP9. The crystalline
 CC polypeptide of the invention is useful in the treatment of a
 CC metalloproteinase mediated disease or condition, such as: tumour growth;
 CC metastasis in cancer; arthritis; osteoarthritis; atherosclerosis;
 CC restenosis; periodontitis; multiple sclerosis; glomerulonephritis; graft-

CC versus-host disease; and non-insulin dependent diabetes. The present
CC amino acid sequence represents a human matrix metalloproteinase 2 (MMP2)
CC protein

XX SQ Sequence 660 AA;

Query Match 100.0%; Score 114; DB 6; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRKPK 19
Db 100 PRCGNPDVANYNFFPRKPK 118
|||||

RESULT 40

ABG76322
ID ABG76322 standard; protein; 660 AA.

XX AC ABG76322;

XX DT 10-MAY-2003 (first entry)

XX DE Human matrix metalloproteinase-2 (MMP-2).

XX KW Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2;
KW cleavage region; proenzyme form; cellular proliferation; fibroblast;
KW keratinocyte; healthy skin development; wound healing; scarring;
KW skin tone; wrinkle; anti-aging; vulnary.

XX OS Homo sapiens.

XX PN WO2003016520-A1.

XX PD 27-FEB-2003.

XX PF 15-AUG-2002; 2002WO-US026198.

XX PR 16-AUG-2001; 2001US-0312726P.

XX PR 21-DEC-2001; 2001US-00032376.

XX PR 21-MAY-2002; 2002US-00153185.

XX PA (KIMB) KIMBERLY-CLARK WORLDWIDE INC.

XX PI Quirk S, Malik S, Villanueva JM;

XX DR WPI; 2003-289980/28.

XX PT Novel peptide inhibitor of proteinase activity of matrix
PT metalloproteinases, e.g. matrix metalloproteinase-2, useful for
PT stimulating cellular proliferation of fibroblasts or keratinocytes.

XX PS Example 1; Page 41-42; 120pp; English.

XX CC The present invention relates to peptide inhibitors of metalloproteinases
CC (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have
CC peptide sequences related to the cleavage regions of the proenzyme forms
CC of the MMPs. The peptide inhibitors are useful for stimulating cellular
CC proliferation of fibroblasts or keratinocytes, promoting healthy skin
CC development, treating wounds, preventing scarring, improving skin tone,
CC reducing wrinkling and for simulating the development of smooth, healthy
CC skin. The peptide inhibitors are useful as anti-aging and wound healing
CC compounds. The present sequence represents human MMP-2

XX SQ Sequence 660 AA;

Query Match 100.0%; Score 114; DB 6; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRKPK 19
Db 100 PRCGNPDVANYNFFPRKPK 118
|||||

RESULT 41

ADD18578
ID ADD18578 standard; protein; 660 AA.

XX AC ADD18578;

XX DT 15-JAN-2004 (first entry)

XX DE Human disease related protein SeqID9.

XX KW human; disease state; cytostatic; antiinflammatory; ophthalmological;
KW antiarteriosclerotic; vulnary; gene therapy;
KW hypoxia-regulated condition; tumorigenesis; angiogenesis; apoptosis;
KW inflammation; erythropoiesis; glycolysis; gluconeogenesis;
KW glucose transport; catecholamine synthesis; iron transport;
KW nitric oxide synthesis; cancer; ischaemic condition; reperfusion injury;
KW retinopathy; neonatal stress; pre-eclampsia; atherosclerosis;
KW inflammatory condition; wound healing.

XX OS Homo sapiens.

XX PN WO2003018621-A2.

XX PD 06-MAR-2003.

XX PF 23-AUG-2002; 2002WO-GB003892.

XX PR 23-AUG-2001; 2001GB-00020558.

XX PR 05-OCT-2001; 2001GB-00024037.

XX PA (OXFO-) OXFORD BIOMEDICA UK LTD.

XX PI Kingman SM, White J, Ward NR, Harris RA, Naylor S, Mundy CR;

XX DR WPI; 2003-290046/28.

XX DR N-PSDB; ADD18579.

XX PT New substantially purified polypeptide, useful for diagnosing or treating
PT a hypoxia-regulated condition, such as cancer, ischemia, reperfusion
PT injury, retinopathy, pre-eclampsia, atherosclerosis, inflammation, or
PT wound healing.

XX PS Claim 25; SEQ ID NO 9; 424pp; English.

XX CC This invention relates to novel human genes and gene product which are
CC implicated in certain disease states. Compounds which modulate the
CC proteins of the invention may have cytostatic, antiinflammatory, the
CC ophthalmological, antiarteriosclerotic or vulnary activities. The
CC sequences of the invention may be useful for gene therapy. The invention
CC may be useful for diagnosing or treating a hypoxia-regulated condition,
CC such as tumorigenesis, angiogenesis, apoptosis, inflammation,
CC erythropoiesis, or the biological response to hypoxia conditions
CC including processes such as glycolysis, gluconeogenesis, glucose
CC transport, catecholamine synthesis, iron transport or nitric oxide
CC synthesis. The disease includes cancer, ischaemic conditions, reperfusion
CC injury, retinopathy, neonatal stress, pre-eclampsia, atherosclerosis,
CC inflammatory conditions or wound healing. The present sequence is that of
CC a disease related protein of the invention.

XX SQ Sequence 660 AA;

Query Match 100.0%; Score 114; DB 7; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRKPK 19
Db 100 PRCGNPDVANYNFFPRKPK 118
|||||

RESULT 42

XX Fibronection; healthy skin; wrinkle; wound; vulnery; dermatological;
 KW human; matrix metalloproteinase; MMP.
 XX
 XX Homo sapiens.
 XX
 XX US2004127421-A1.
 XX
 XX 01-JUL-2004.
 XX
 XX 30-DEC-2002; 2002US-00335207.
 XX
 XX 30-DEC-2002; 2002US-00335207.
 XX
 XX (MALI/) MALIK S.
 PA (QUIR/) QUIRK S.
 XX
 XX Malik S, Quirk S;
 XX
 XX WPI; 2004-506456/48.
 DR
 XX
 XX Composition used for preventing and treating wrinkles and treating wounds
 PT comprises peptide having sequence related to matrix metalloproteinase
 PT proenzyme.
 XX
 XX Example 1; SEQ ID NO 14; 60pp; English.
 PS
 XX The present invention provides peptides and compositions containing such
 CC peptides that are useful as agents to maintain healthy skin and to
 CC promote the condition of the skin. The invention is useful for increasing
 CC the amount of fibronectin in tissue. The invention is also useful for
 CC encouraging the maintenance and development of healthy skin, preventing
 CC and treating wrinkles and for treating wounds. The invention acts as
 CC vulnery and dermatological agents. The present sequence is human matrix
 CC metalloproteinase-2 (MMP2) protein. This sequence is used in the
 CC exemplification of the invention.
 XX
 XX Sequence 660 AA;
 SQ
 Query Match 100.0%; Score 114; DB 8; Length 660;
 Best Local Similarity 100.0%; Pred. No. 5e-09;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRCGNPDVANYNFFPRKPK 19
 DB 100 PRCGNPDVANYNFFPRKPK 118
 RESULT 45
 ADV90301
 ID ADV90301 standard; protein; 660 AA.
 XX
 XX ADV90301;
 XX
 XX 10-MAR-2005 (first entry)
 XX
 XX Protease-hydrolysed polypeptide #78.
 DE
 XX
 XX Protease; immune disorder; inflammation; musculoskeletal disease;
 KW dermatological disease; gastrointestinal disease; endocrine disease;
 KW metabolic disorder; cancer; hematological disease;
 KW cardiovascular disease; neurological disease; neurodegenerative disease;
 KW growth disorder; respiratory disease; genitourinary disease;
 KW gynecological disorder; nutritional disorder; infection; cytostatic;
 KW gastrointestinal-gen.; antiinflammatory; antiasthmatic; analgesic;
 KW antiarthritic; osteopathic; antidiabetic; nephrotropic;
 KW cardiovascular-gen.; immunosuppressive; respiratory-gen.; antipsoriatic;
 KW antiallergic; dermatological; enzyme; hydrolysis.
 XX
 XX Homo sapiens.
 OS
 XX WO2004113522-A1.
 PN
 XX

PD 29-DEC-2004.
 XX
 XX 18-JUN-2004; 2004WO-EP051173.
 XX
 XX 18-JUN-2003; 2003EP-00013819.
 PR 10-NOV-2003; 2003EP-00025851.
 PR 11-NOV-2003; 2003EP-00025871.
 PR 11-FEB-2004; 2004EP-00003058.
 XX
 XX (DIRE-) DIREVO BIOTECH AG.
 PA
 XX
 XX Haupts U, Koltermann A, Scheidig A, Voetsmeier C, Ketting U;
 PI WPI; 2005-057985/06.
 XX
 XX Proteases with defined specificity for a target substrate useful for
 PT treating a specific disease related to the target substrate, such as
 PT cancer, asthma, diabetes, inflammatory disorders and psoriasis.
 XX
 XX Claim 43; SEQ ID NO 131; 250pp; English.
 XX
 XX The invention relates to the use of a protease with defined specificity
 CC for a target substrate for preparing a medicament for the treatment of a
 CC specific disease related to the target substrate. The invention also
 CC relates to a pharmaceutical or diagnostic composition comprising one or
 CC more enzymes in the use cited, optionally comprising pharmaceutically or
 CC diagnostically acceptable carriers, excipients and/or auxiliary agents, a
 CC method for cleaving a target substrate in vivo or in vitro comprising
 CC contacting the target substrate with a protease as cited in the use
 CC mentioned, and a method for treatment of a disease as cited in the use
 CC with a specific target substrate comprising administering to the patient
 CC a protease with defined specificity for the specific target substrate.
 CC The protease hydrolyzes the target substrate and eliminates or reduces
 CC one or more biological activities, physico-chemical properties or
 CC pharmacological properties of the target protein and/or activates or
 CC increases one or more biological activities, physico-chemical properties
 CC or pharmacological properties of the target protein, and/or adds one or
 CC more biological activities, physico-chemical properties or
 CC pharmacological properties to the target protein. The protease may be
 CC administered to treat immune disorders, inflammatory disorders,
 CC musculoskeletal diseases, dermatological diseases, gastrointestinal
 CC diseases, endocrine diseases, metabolic disorder, cancers, hematological
 CC diseases, cardiovascular diseases, neurological diseases, respiratory diseases,
 CC neurodegenerative diseases, growth disorders, genitourinary diseases,
 CC genitourinary diseases, gynecological disorders, nutritional disorders
 CC and infections. This sequence represents a polypeptide hydrolysed by a
 CC protease used in the scope of the invention.
 XX
 XX Sequence 660 AA;
 SQ
 Query Match 100.0%; Score 114; DB 9; Length 660;
 Best Local Similarity 100.0%; Pred. No. 5e-09;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRCGNPDVANYNFFPRKPK 19
 DB 100 PRCGNPDVANYNFFPRKPK 118
 RESULT 46
 ADV68478
 ID ADV68478 standard; protein; 660 AA.
 XX
 XX ADV68478;
 XX
 XX 10-MAR-2005 (first entry)
 XX
 XX Human matrix metalloproteinase-2 protein SeqID14.
 DE
 XX
 XX cell growth; pharmaceutical; cytostatic; metalloproteinase 1 inhibitor;
 KW metalloproteinase 2 inhibitor; metalloproteinase 3 inhibitor;
 KW metalloproteinase 4 inhibitor; metalloproteinase 5 inhibitor;
 KW metalloproteinase 6 inhibitor; metalloproteinase 7 inhibitor;
 KW

KW metalloprotease 8 inhibitor; metalloprotease 9 inhibitor;
 KW metalloprotease 10 inhibitor; metalloprotease 11 inhibitor;
 KW metalloprotease 12 inhibitor; metalloprotease 13 inhibitor;
 KW metalloprotease inhibitor; bone tumor; sarcoma.

XX Homo sapiens.

XX US2004259802-A1.

XX 23-DEC-2004.

XX 20-JUN-2003; 2003US-00601059.

XX 20-JUN-2003; 2003US-00601059.

XX (YANG/) YANG S.

XX (QUIR/) QUIRK S.

XX Yang S, Quirk S;

XX WPI; 2005-047374/05.

XX A composition for decreasing and inhibiting the growth of chondrosarcoma cells, useful for treating chondrosarcomas and bone cancer, comprises a matrix metalloproteinase inhibitor.

XX Example 1; SEQ ID NO 14; 50pp; English.

XX This invention relates to a novel composition for inhibiting growth of chondrosarcoma cells comprising an amount of a peptide and a pharmaceutical carrier. The invention may be useful for the production of compounds with a cytostatic activity acting as metalloprotease 1 inhibitors, metalloprotease 2 inhibitors, metalloprotease 3 inhibitors, metalloprotease 4 inhibitors, metalloprotease 5 inhibitors, metalloprotease 6 inhibitors, metalloprotease 7 inhibitors, metalloprotease 8 inhibitors, metalloprotease 9 inhibitors, metalloprotease 10 inhibitors, metalloprotease 11 inhibitors, metalloprotease 12 inhibitors, metalloprotease 13 inhibitors or metalloprotease inhibitors. The composition is useful for decreasing and inhibiting the growth of chondrosarcoma cells which in turn inhibits growth of a bone tumor or diminishes a size of a bone tumor, useful for treating chondrosarcomas and bone cancers. The present sequence is that of a human matrix metalloproteinase which may be used during the development of a composition of the invention.

XX Sequence 660 AA;

Query Match 100.0%; Score 114; DB 9; Length 660;
 Best Local Similarity 100.0%; Pred. No. 5e-09;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGNDPVANNFFPRKPK 19
 Db 100 PRGNDPVANNFFPRKPK 118

RESULT 47
 ADE62857

ID ADE62857 standard; protein; 662 AA.

XX ADE62857;

XX 29-JAN-2004 (first entry)

XX Rat Protein P33436, SEQ ID NO 8791.

XX Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury;
 KW chronic constriction injury; CCI; spared nerve injury; SNI; Chung.

XX Rattus norvegicus.

XX WO2003016475-A2.

XX

PD 27-FEB-2003.

XX 14-AUG-2002; 2002WO-US025765.

XX 14-AUG-2001; 2001US-0312147P.

PR 01-NOV-2001; 2001US-0346382P.

PR 26-NOV-2001; 2001US-0333347P.

XX (GEHO) GEN HOSPITAL CORP.

PA (FARB) BAYER AG.

XX Woolf C, D'urso D, Befort K, Costigan M;

XX WPI; 2003-268312/26.

XX GENBANK; P33436.

XX New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.

XX Claim 1; Page; 1017pp; English.

XX The invention discloses a composition comprising two or more isolated rat or human polynucleotides or a polynucleotide which represents a fragment, derivative or allelic variation of the nucleic acid sequence. Also claimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a kit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying a compound which regulates the expression of a polynucleotide sequence which is differentially expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a method for identifying a compound or small molecule that regulates the activity in an animal of one or more of the polypeptides given in the specification, a method for identifying a compound useful in treating pain and a pharmaceutical composition comprising the one or more polypeptides or their antibodies. The polynucleotide or the compound that modulates its activity is useful for preparing a medicament for treating pain (e.g. spinal segmental nerve injury (Chung), chronic constriction injury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene therapy). The sequence presented is a rat protein (shown in Table 2 of the specification) which is differentially expressed during pain. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic form directly from WIPO at ftp.wipo.int/pub/published_pct_sequences.

XX Sequence 662 AA;

Query Match 100.0%; Score 114; DB 7; Length 662;
 Best Local Similarity 100.0%; Pred. No. 5e-09;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGNDPVANNFFPRKPK 19
 Db 100 PRGNDPVANNFFPRKPK 118

RESULT 48
 ADD46270

ID ADD46270 standard; protein; 662 AA.

XX ADD46270;

XX 29-JAN-2004 (first entry)

XX Rat Protein P33436, SEQ ID NO 11945.

XX Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury;
 KW chronic constriction injury; CCI; spared nerve injury; SNI; Chung.

XX

OS Rattus norvegicus.
XX WO2003016475-A2.
XX 27-FEB-2003.
XX
XX 14-AUG-2002; 2002WO-US025765.
XX
XX 14-AUG-2001; 2001US-0312147P.
PR 01-NOV-2001; 2001US-0346382P.
PR 26-NOV-2001; 2001US-0333347P.
XX
XX (GEHO) GEN HOSPITAL CORP.
PA (FARB) BAYER AG.
XX
XX Woolf C, D'urso D, Befort K, Costigan M;
XX
XX WPI; 2003-268312/26.
DR GENBANK; P33436.
XX
XX New composition comprising two or more isolated polypeptides, useful for
XX preparing a medicament for treating pain in an animal.
XX
XX Claim 1; Page; 1017pp; English.
XX
XX The invention discloses a composition comprising two or more isolated rat
XX or human polynucleotides or a polynucleotide which represents a fragment,
XX derivative or allelic variation of the nucleic acid sequence. Also
XX claimed are a vector comprising the novel polynucleotide, a host cell
XX comprising the vector, a method for identifying a nucleotide sequence
XX which is differentially regulated in an animal subjected to pain and a
XX kit to perform the method, an array, a method for identifying an agent
XX that increases or decreases the expression of the polynucleotide sequence
XX that is differentially expressed in neuronal tissue of a first animal
XX subjected to pain, a method for identifying a compound which regulates
XX the expression of a polynucleotide sequence which is differentially
XX expressed in an animal subjected to pain, a method for identifying a
XX compound that regulates the activity of one or more of the
XX polynucleotides, a method for producing a pharmaceutical composition, a
XX method for identifying a compound or small molecule that regulates the
XX activity in an animal of one or more of the polypeptides given in the
XX specification, a method for identifying a compound useful in treating
XX pain and a pharmaceutical composition comprising the one or more
XX polypeptides or their antibodies. The polynucleotide or the compound that
XX modulates its activity is useful for preparing a medicament for treating
XX pain (e.g. spinal segmental nerve injury (Chung), chronic constriction
XX injury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene
XX therapy). The sequence presented is a rat protein (shown in Table 2 of
XX the specification) which is differentially expressed during pain. Note:
XX the sequence data for this patent did not form part of the printed
XX specification, but was obtained in electronic form directly from WIPO at
XX ftp.wipo.int/pub/published_pct_sequences.
XX
XX Sequence 662 AA;

Query Match 100.0%; Score 114; DB 7; Length 662;
Best Local Similarity 100.0%; Pred. No. 5e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRKPK 19
|||||
Db 100 PRCGNPDVANYNFFPRKPK 118

RESULT 49
AAW41111
ID AAW41111 standard; protein; 663 AA.
XX
AC AAW41111;
XX

08-JUN-1998 (first entry)
XX
DE Chicken matrix metalloproteinase-2.

XX Matrix metalloproteinase-2; MMP-2; chMMP-2; chicken; Angiogenesis;
KW inhibitor; antagonist; integrin alpha-v beta-3; vitronectin receptor;
KW rheumatoid arthritis; tumour; metastasis; diabetic retinopathy;
KW macular degeneration; restenosis; therapy.
XX
OS Gallus sp.
XX
XX Key Location/Qualifiers
XX Peptide 1. .26
FT /label= Sig_peptide
XX
XX WO9745137-A1.
PN
XX 04-DEC-1997.
PD
XX 30-MAY-1997; 97WO-US0009158.
PF
XX 31-MAY-1996; 96US-0015869P.
PR 31-MAY-1996; 96US-0018733P.
PR
XX (SCRI) SCRIPPS RES INST.
PA
XX Brooks P, Cheresch DA;
PI
XX WPI; 1998-032334/03.
DR N-PSDB; AAV03995.
DR
XX Packaging material containing polypeptide antagonist of alphav, beta3
XX integrin - used for inhibition of angiogenesis, and for treating tumours,
XX inflammation, eye diseases etc.
XX
XX Disclosure; Page 163-167; 234pp; English.
XX
XX This protein sequence comprises chicken matrix metalloproteinase-2 (chMMP
XX -2). The invention relates to the discovery that angiogenesis is mediated
XX by the specific vitronectin receptor alpha-v beta-3, and that inhibition
XX of alpha-v beta-3 function inhibits angiogenesis. Claimed antagonists of
XX alpha-v beta-3 include C-terminal fragments (see AAW41083-94) of human or
XX chicken MMP-2. An MMP-2 fragment can be obtained by recombinant DNA
XX methods, such as PCR amplification of the chMMP-2 coding region, cloning
XX into e.g. pGEX-3X, and expression in E. coli as a fusion protein with
XX glutathione-S-transferases. The antagonists can be used to inhibit
XX angiogenesis in inflamed tissue (for treatment of arthritis or
XX rheumatoid arthritis), in solid tumours or metastases (particularly to
XX induce regression or inhibit tumour growth), and in ocular disorders such
XX as diabetic retinopathy and macular degeneration, as well as to treat
XX restenosis (all claimed)
XX
XX Sequence 663 AA;

Query Match 100.0%; Score 114; DB 2; Length 663;
Best Local Similarity 100.0%; Pred. No. 5e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRKPK 19
|||||
Db 97 PRCGNPDVANYNFFPRKPK 115

RESULT 50
ADT05976
ID ADT05976 standard; protein; 663 AA.
XX
AC ADT05976;
XX

30-DEC-2004 (first entry)
XX

Chicken matrix metalloprotease (MMP-2) version #1, SEQ ID NO:30.

Angiogenesis inhibitor; integrin alpha-v beta-3 antagonist;
XX vitronectin receptor antagonist; neovascularisation; cancer; tumour;
KW inflammation; rheumatoid arthritis; retina; diabetic retinopathy;

KW restenosis; smooth muscle cell migration; angioplasty; antiangiogenic;
KW cytosatic; antiinflammatory; antiarthritic; antirheumatic;
KW ophthalmological; vasotropic; muscular-gen.;
KW peptidomimetic; matrix metalloprotease 2; MMP-2; progelatinase; chicken;
KW enzyme.

XX Gallus gallus.

OS Synthetic.

XX Location/Qualifiers

PH 1. .26

FT /label= Signal_peptide

FT 27. .663

FT /label= Mature_MMP-2

FT Misc-difference 202. .205

FT /note= "This section is Asp-Ser-His-Phe in the chicken

FT MMP-2 shown in figure 7"

FT 436. .663

FT /note= "Corresponds to residues 410-637 of the mature

FT protein (see SEQ ID NO:23)"

FT 471. .663

FT /label = Hemopexin domain

FT /note = Corresponds to residues 445-637 of the mature

FT protein (see also SEQ ID NO:24)

FT 471. .578

FT /note= "Corresponds to residues 445-552 of the mature

FT protein (see SEQ ID NO:26)"

FT 471. .544

FT /note= "Corresponds to residues 445-518 of the mature

FT protein (see SEQ ID NO:25)"

FT 542. .663

FT /note= "Corresponds to residues 516-637 of the mature

FT protein (see SEQ ID NO:27)"

FT 575. .663

FT /note= "Corresponds to residues 549-637 of the mature

FT protein (see SEQ ID NO:28)"

FT WO2004087057-A2.

XX 14-OCT-2004.

XX 26-MAR-2004; 2004WO-US009321.

XX 28-MAR-2003; 2003US-00402212.

XX (SCRI) SCRIPPS RES INST.

XX Brooks PC, Cheresch DA;

XX WPI; 2004-737508/72.

XX N-PSDB; ADT05975.

XX Administration of composition comprising organic peptidomimetic alpha-v

XX beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue

XX angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.

XX Example 2; SEQ ID NO 30; 184pp; English.

XX The invention relates to a method of inhibiting angiogenesis in a tissue

XX by the administration of a composition comprising an organic

XX peptidomimetic antagonist of integrin alpha-v beta-3 (vitronectin

XX receptor). The integrin alpha-v beta-3 antagonist and compositions

XX containing it are useful for inhibiting angiogenesis in a variety of

XX medical conditions. The antagonist may be used to induce the regression

XX of solid tumours or solid tumour metastases; to inhibit the growth of

XX solid tumours undergoing neovascularisation; to treat inflamed tissue in

XX which neovascularisation is occurring (e.g., in rheumatoid arthritis); to

XX treat neovascularisation in retinal tissue (e.g., in diabetic

XX retinopathy); to treat restenosis in a tissue by inhibiting smooth muscle

XX cell migration (such as that which occurs following angioplasty); and to

XX reduce the blood supply to a tissue required to support new growth of the

XX tissue. The present sequence represents chicken matrix metalloprotease 2

XX (MMP-2, gelatinase) used in an example of the invention. Note: The

CC present sequence differs between residues 202-205 compared to the

CC sequence also described as chicken MMP-2 shown in figure 7A-7C

XX (ADT05995).

XX SQ Sequence 663 AA;

Query Match 100.0%; Score 114; DB 8; Length 663;

Best Local Similarity 100.0%; Pred. No. 5e-09;

Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 PRCGNPDVANYNFFPRPKP 19

Db 97 PRCGNPDVANYNFFPRPKP 115

|||||

RESULT 51

ADT05995

ID ADT05995 standard; protein; 663 AA.

XX AC ADT05995;

XX DT 30-DEC-2004 (first entry)

XX DE Chicken matrix metalloprotease (MMP-2) version #2.

XX KW Angiogenesis inhibitor; integrin alpha-v beta-3 antagonist;

XX KW vitronectin receptor antagonist; neovascularisation; cancer; tumour;

XX KW inflammation; rheumatoid arthritis; retina; diabetic retinopathy;

XX KW restenosis; smooth muscle cell migration; angioplasty; antiangiogenic;

XX KW cytosatic; antiinflammatory; antiarthritic; antirheumatic;

XX KW ophthalmological; antidiabetic; vasotropic; muscular-gen.;

XX KW peptidomimetic; matrix metalloprotease 2; MMP-2; progelatinase; chicken;

XX KW enzyme.

XX OS Gallus gallus.

XX Key

PH Peptide

FT 1. .26

FT /label= Signal_peptide

FT 27. .663

FT /label= Mature_MMP-2

FT Misc-difference 202. .205

FT /note= "This section is Ser-His-Phe-Asp in the chicken

FT MMP-2 shown in SEQ ID NO:30"

FT Misc-difference 202

FT /note= "Encoded by TCC"

FT Misc-difference 203

FT /note= "Encoded by CAT"

FT Misc-difference 204

FT /note= "Encoded by TTT"

FT Misc-difference 205

FT /note= "Encoded by GAT"

FT Region

FT 436. .663

FT /note= "Corresponds to residues 410-637 of the mature

FT protein (see SEQ ID NO:23)"

FT 471. .663

FT /label = Hemopexin domain

FT /note = Corresponds to residues 445-637 of the mature

FT protein (see also SEQ ID NO:24)

FT 471. .578

FT /note= "Corresponds to residues 445-552 of the mature

FT protein (see SEQ ID NO:26)"

FT 471. .544

FT /note= "Corresponds to residues 445-518 of the mature

FT protein (see SEQ ID NO:25)"

FT 542. .663

FT /note= "Corresponds to residues 516-637 of the mature

FT protein (see SEQ ID NO:27)"

FT 575. .663

FT /note= "Corresponds to residues 549-637 of the mature

FT protein (see SEQ ID NO:28)"

XX WO2004087057-A2.

XX PD 14-OCT-2004.
 XX PF 26-MAR-2004; 2004WO-US009321.
 XX PR 28-MAR-2003; 2003US-00402212.
 XX PA (SCRI) SCRIPPS RES INST.
 XX PI Brooks PC, Cheres DA;
 XX PT WPI: 2004-737508/72.
 XX DR N-PSDB; ADT05994.
 XX PS Administration of composition comprising organic peptidomimetic alpha-v
 PT beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue
 PT angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
 XX Example 2; Fig 7A-C; 184pp; English.
 XX The invention relates to a method of inhibiting angiogenesis in a tissue
 CC by the administration of a composition comprising an organic
 CC peptidomimetic antagonist of integrin alpha-v beta-3 (vitronectin
 CC receptor). The integrin alpha-v beta-3 antagonist and compositions
 CC containing it are useful for inhibiting angiogenesis in a variety of
 CC medical conditions. The antagonist may be used to induce the regression
 CC of solid tumours or solid tumour metastases; to inhibit the growth of
 CC solid tumours undergoing neovascularisation; to treat inflamed tissue in
 CC treat neovascularisation in retinal tissue (e.g., in rheumatoid arthritis); to
 CC retinopathy); to treat restenosis in a tissue by inhibiting smooth muscle
 CC cell migration (such as that which occurs following angioplasty); and to
 CC reduce the blood supply to a tissue required to support new growth of the
 CC tissue. The present sequence represents chicken matrix metalloproteinase 2
 CC (MMP-2, Gelatinase) used in an example of the invention. Note: The
 CC present sequence differs between residues 202-205 compared to the
 CC sequence also described as chicken MMP-2 shown in the sequence listing
 CC (ADT05976)
 XX SQ Sequence 663 AA;
 Query Match 100.0%; Score 114; DB 8; Length 663;
 Best Local Similarity 100.0%; Pred. No. 5e-09; 0; Indels 0; Gaps 0;
 Matches 19; Conservative 0; Mismatches 0;
 QY 1 PRCGNPDVANYNFFPRKPK 19
 Db |||||
 97 PRCGNPDVANYNFFPRKPK 115
 RESULT 52
 ADF60554
 ID ADF60554 standard; protein; 708 AA.
 AC ADF60554;
 DT 12-FEB-2004 (first entry)
 XX Human contig polypeptide sequence SEQ ID NO:2921.
 DE biological activity; genetic engineering; hybridisation probe; oligomer;
 XX primer; chromosome mapping; gene mapping; recombinant protein production;
 KW human.
 KW Homo sapiens.
 OS
 XX WO2003080795-A2.
 PN 02-OCT-2003.
 XX 09-AUG-2002; 2002WO-US025485.
 PF 09-AUG-2001; 2001US-0311261P.
 PR

XX PA (HYSE-) HYSEQ INC.
 XX PI Tang YT, Yang Y, Wang Z, Weng G, Ma Y;
 XX DR WPI: 2003-876918/81.
 XX DR N-PSDB; ADF60102.
 XX PT New polynucleotides, useful as hybridization probes, oligomers or
 PT primers, for chromosome or gene mapping, for the recombinant production
 PT of proteins, and for generating antisense DNA or RNA.
 XX Example 3; SEQ ID NO 2921; 571pp; English.
 XX The present invention describes isolated polynucleotide sequences (I),
 CC which encode polypeptides (II) with biological activity. Also described:
 CC (1) a vector comprising (I); (2) an expression vector comprising (I); (3)
 CC a host cell genetically engineered to comprise (I) which is operatively
 CC associated with a regulatory sequence that modulates expression of (I) in
 CC the host cell; (4) a polypeptide (II) encoded by (I); (5) a composition
 CC comprising the polypeptide of (4) and a carrier; (6) an antibody directed
 CC against the polypeptide of (4); (7) detecting (I) or the polypeptide of
 CC of (4); (8) identifying a compound that binds to the polypeptide
 CC of (4); (9) producing the polypeptide of (4); and (10) a collection of
 CC polynucleotides comprising at least one of the polynucleotide sequences
 CC (I). The polynucleotides (I) can be used as hybridisation probes,
 CC oligomers or primers, for chromosome or gene mapping, for the recombinant
 CC production of proteins, and for generating antisense DNA or RNA. The
 CC present sequence represents a human contig polypeptide sequence, which is
 CC used in an example from the present invention.
 XX SQ Sequence 708 AA;
 Query Match 100.0%; Score 114; DB 7; Length 708;
 Best Local Similarity 100.0%; Pred. No. 5.4e-09;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRCGNPDVANYNFFPRKPK 19
 Db |||||
 148 PRCGNPDVANYNFFPRKPK 166
 RESULT 53
 AEA20970
 ID AEA20970 standard; protein; 708 AA.
 XX AEA20970;
 AC AEA20970;
 DT 11-AUG-2005 (first entry)
 XX Novel human polypeptide SEQ ID NO 1664.
 DE vulnary; CNS-gen.; gene therapy; diagnostic; forensic; mapping;
 KW DNA purification; protein purification; osteoarthritis; antiarthritic;
 KW osteopathic; musculoskeletal disease; osteoporosis; endocrine disease;
 KW periodontal disease; antiinflammatory; mouth disease; burns; injury;
 KW peripheral neuropathy; Alzheimers disease; antiparkinsonian; neurologic disease;
 KW degeneration; parkinsons disease; cerebroprotective; vasotropic;
 KW cerebrovascular ischemia; cerebroprotective; vasotropic;
 KW cardiovascular disease; autoimmune disease; immunosuppressive;
 KW immune disorder; viral infection; virucide; infection; cancer;
 KW cytostatic; neoplasm.
 XX Homo sapiens.
 OS
 XX WO2005049806-A2.
 PN 02-JUN-2005.
 XX 11-MAR-2004; 2004WO-US007412.
 PF 14-MAR-2003; 2003US-00389559.
 PR

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OM protein - protein search, using sw model

Run on: February 21, 2006, 08:00:29 ; Search time 43.5 Seconds
(without alignments)
36.111 Million cell updates/sec

Title: US-10-601-059-11
Perfect score: 114
Sequence: 1 PRGNDPVANFFPRKPK 19

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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4: /cgm2_6/ptodata/1/iaa/PCUS_COMB.pep:*
5: /cgm2_6/ptodata/1/iaa/RE_COMB.pep:*
6: /cgm2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	114	100.0	19	2	US-10-153-185-11
2	114	100.0	43	2	US-10-153-185-15
3	114	100.0	44	2	US-10-153-185-2
4	114	100.0	631	2	US-08-448-489-17
5	114	100.0	631	2	US-08-689-730-17
6	114	100.0	660	2	US-08-704-711A-18
7	114	100.0	660	2	US-09-521-220-18
8	114	100.0	660	2	US-09-391-104-19
9	114	100.0	660	2	US-09-917-254-89
10	114	100.0	660	2	US-09-949-016-6512
11	114	100.0	660	2	US-09-949-016-7937
12	114	100.0	660	2	US-10-153-185-14
13	114	100.0	663	2	US-09-194-468A-30
14	91	79.8	135	2	US-09-513-999C-4639
15	78	68.4	135	2	US-09-513-999C-4163
16	78	68.4	264	2	US-09-009-156-6
17	78	68.4	264	2	US-09-372-154-6
18	78	68.4	264	2	US-09-950-688-6
19	78	68.4	267	2	US-08-448-489-18
20	78	68.4	267	2	US-09-391-104-27
21	78	68.4	267	2	US-09-689-730-18
22	78	68.4	271	2	US-08-896-062-2
23	78	68.4	277	2	US-09-949-016-8131
24	72	63.2	50	2	US-10-153-185-3
25	72	63.2	471	2	US-09-391-104-25
26	72	63.2	480	2	US-09-949-016-10560
27	68	59.6	56	2	US-10-153-185-4

28	66	57.9	55	2	US-10-153-185-6	Sequence 6, Appl
29	66	57.9	471	2	US-08-994-689C-21	Sequence 21, Appl
30	66	57.9	476	2	US-08-704-711A-21	Sequence 21, Appl
31	66	57.9	476	2	US-08-448-489-14	Sequence 14, Appl
32	66	57.9	476	2	US-09-521-220-21	Sequence 21, Appl
33	66	57.9	476	2	US-09-391-104-22	Sequence 22, Appl
34	66	57.9	476	2	US-09-949-016-6224	Sequence 6224, Ap
35	66	57.9	476	2	US-09-689-730-14	Sequence 14, Appl
36	65	57.9	484	2	US-09-949-016-10877	Sequence 10877, A
37	63	55.3	54	2	US-10-153-185-5	Sequence 5, Appl
38	63	55.3	471	2	US-08-994-689C-1	Sequence 1, Appl
39	63	55.3	477	2	US-08-704-711A-20	Sequence 20, Appl
40	63	55.3	477	2	US-08-448-489-15	Sequence 15, Appl
41	63	55.3	477	2	US-08-281-313-1	Sequence 9, Appl
42	63	55.3	477	2	US-09-521-220-20	Sequence 20, Appl
43	63	55.3	477	2	US-09-391-104-21	Sequence 21, Appl
44	63	55.3	477	2	US-09-689-730-15	Sequence 15, Appl
45	63	55.3	477	2	US-09-949-002-342	Sequence 342, App

ALIGNMENTS

RESULT 1
US-10-153-185-11
; Sequence 11, Application US/10153185
; Patent No. 6906036
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; CURRENT FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-11

Query Match 100.0%; Score 114; DB 2; Length 19;
Best Local Similarity 100.0%; Pred. NO. 1.4e-11;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGNDPVANFFPRKPK 19
Db 1 PRGNDPVANFFPRKPK 19

RESULT 2
US-10-153-185-15
; Sequence 15, Application US/10153185
; Patent No. 6906036
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; CURRENT FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 15


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; FILING DATE: 17-MAR-1994
; ATTORNEY/AGENT INFORMATION:
; NAME: GRANADOS, Patricia D.
; REGISTRATION NUMBER: 33,683
; REFERENCE/DOCKET NUMBER: 26083/124
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202)672-5300
; TELEFAX: (202)672-5399
; TELEX: 904136
; INFORMATION FOR SEQ ID NO: 18:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 660 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
US-08-704-711A-18

Query Match 100.0%; Score 114; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 7.6e-10;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGPNPDVANYNFFPRPK 19
Db 100 PRGPNPDVANYNFFPRPK 118

RESULT 7
US-09-521-220-18
; Sequence 18, Application US/09521220
; Patent No. 6399348
; GENERAL INFORMATION:
; APPLICANT: WILL, Horst
; TITLE OF INVENTION: DNA SEQUENCES FOR MATRIX
; METALLOPROTEASES, THEIR PRODUCTION AND USE
; NUMBER OF SEQUENCES: 22
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Foley & Lardner
; STREET: 3000 K Street, N.W., Suite 500
; CITY: Washington
; STATE: D.C.
; COUNTRY: USA
; ZIP: 20007-5109
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/521,220
; FILING DATE: 08-Mar-2000
; CLASSIFICATION: <Unknown>
; 21-OCT-1994
; 17-MAR-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/704,711
; FILING DATE: <Unknown>
; APPLICATION NUMBER: DE 4438838.1
; FILING DATE: 21-OCT-1994
; APPLICATION NUMBER: DE 4409663.1
; FILING DATE: 17-MAR-1994
; ATTORNEY/AGENT INFORMATION:
; NAME: GRANADOS, Patricia D.
; REGISTRATION NUMBER: 33,683
; REFERENCE/DOCKET NUMBER: 26083/124
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202)672-5300
; TELEFAX: (202)672-5399
; TELEX: 904136
; INFORMATION FOR SEQ ID NO: 18:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 660 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
US-09-917-254-89

Query Match 100.0%; Score 114; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 7.6e-10;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGPNPDVANYNFFPRPK 19
Db 100 PRGPNPDVANYNFFPRPK 118

RESULT 8
US-09-391-104-19
; Sequence 19, Application US/09391104
; Patent No. 6399371
; GENERAL INFORMATION:
; APPLICANT: Abbott Laboratories
; APPLICANT: Falduto, Michael T.
; APPLICANT: Magnuson, Scott R.
; APPLICANT: Morgan, Douglas W.
; TITLE OF INVENTION: HUMAN MATRIX METALLOPROTEASE GENE,
; PROTEINS ENCODED THEREFROM AND METHODS
; TITLE OF INVENTION: OF USING SAME
; FILE REFERENCE: 6073.US.PI
; CURRENT APPLICATION NUMBER: US/09/391,104
; CURRENT FILING DATE: 1999-09-07
; PRIOR APPLICATION NUMBER: US 08/814,394
; PRIOR FILING DATE: 1997-03-11
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 19
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-391-104-19

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Best Local Similarity 100.0%; Pred. No. 7.6e-10;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGPNPDVANYNFFPRPK 19
Db 100 PRGPNPDVANYNFFPRPK 118

RESULT 9
US-09-917-254-89
; Sequence 89, Application US/09917254
; Patent No. 6703204
; GENERAL INFORMATION:
; APPLICANT: Mutter, George
; APPLICANT: Baak, Jan
; TITLE OF INVENTION: Prognostic Classification of Breast Cancer
; FILE REFERENCE: B0801/7224(JRV)
; CURRENT APPLICATION NUMBER: US/09/917,254
; CURRENT FILING DATE: 2001-07-27
; PRIOR APPLICATION NUMBER: US 60/222,093
; PRIOR FILING DATE: 2000-07-28
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 89
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo Sapiens
US-09-917-254-89

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Best Local Similarity 100.0%; Pred. No. 7.6e-10;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Db      100 PRGCPDVPVANYNFFPRPK 118

RESULT 10
US-09-949-016-6512
; Sequence 6512, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 6512
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Human
US-09-949-016-6512

Query Match      100.0%; Score 114; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 7.6e-10;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 PRGCPDVPVANYNFFPRPK 19
Db      100 PRGCPDVPVANYNFFPRPK 118

RESULT 11
US-09-949-016-7937
; Sequence 7937, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 7937
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Human
US-09-949-016-7937

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Best Local Similarity 100.0%; Pred. No. 7.6e-10;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db      100 PRGCPDVPVANYNFFPRPK 118

RESULT 12
US-10-153-185-14
; Sequence 14, Application US/10153185
; Patent No. 6906036
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Schall
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; CURRENT FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-14

Query Match      100.0%; Score 114; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 7.6e-10;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db      100 PRGCPDVPVANYNFFPRPK 118

RESULT 13
US-09-194-468A-30
; Sequence 30, Application US/09194468A
; Patent No. 6500924
; GENERAL INFORMATION:
; APPLICANT: Brooks, Peter
; APPLICANT: Cheresch, David A.
; TITLE OF INVENTION: METHODS AND COMPOSITIONS USEFUL FOR INHIBITION OF
; ANGIOGENESIS
; FILE REFERENCE: MER0049S
; CURRENT APPLICATION NUMBER: US/09/194,468A
; CURRENT FILING DATE: 1999-03-23
; PRIOR APPLICATION NUMBER: 60/018,773
; PRIOR FILING DATE: 1996-05-31
; PRIOR APPLICATION NUMBER: 60/015,896
; PRIOR FILING DATE: 1996-05-31
; PRIOR APPLICATION NUMBER: PCT/US97/09158
; PRIOR FILING DATE: 1997-05-30
; NUMBER OF SEQ ID NOS: 45
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 30
; LENGTH: 663
; TYPE: PRT
; ORGANISM: Gallus gallus
US-09-194-468A-30

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Best Local Similarity 100.0%; Pred. No. 7.7e-10;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 PRGCPDVPVANYNFFPRPK 19
Db      97 PRGCPDVPVANYNFFPRPK 115

RESULT 14
US-09-513-999C-4639
; Sequence 4639, Application US/09513999C
; Patent No. 6783961
; GENERAL INFORMATION:
; APPLICANT: Dumas Milne Edwards, J.B.
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APPLICANT: Duclert, A.
APPLICANT: Giordano, J.Y.
TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
Patent No. 6783961
FILE REFERENCE: 59.US2.REG
CURRENT APPLICATION NUMBER: US/09/513,999C
CURRENT FILING DATE: 2000-02-24
PRIOR APPLICATION NUMBER: US 60/122,487
PRIOR FILING DATE: 1999-02-26
NUMBER OF SEQ ID NOS: 36681
SOFTWARE: Patent.pm
SEQ ID NO 4639
LENGTH: 136
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: SIGNAL
LOCATION: -29...-1
OTHER INFORMATION: score 11.4
OTHER INFORMATION: seq LCLLGCLLSHAA/AP
FEATURE:
NAME/KEY: UNSURE
LOCATION: 16
OTHER INFORMATION: Xaa=Lys or Thr
FEATURE:
NAME/KEY: UNSURE
LOCATION: 17
OTHER INFORMATION: Xaa=Asp or Val
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NAME/KEY: UNSURE
LOCATION: 19
OTHER INFORMATION: Xaa=Glu or Lys
FEATURE:
NAME/KEY: UNSURE
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NAME/KEY: UNSURE
LOCATION: 26
OTHER INFORMATION: Xaa=Lys or Asn
FEATURE:
NAME/KEY: UNSURE
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NAME/KEY: UNSURE
LOCATION: 33
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NAME/KEY: UNSURE
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OTHER INFORMATION: Tyr

FEATURE:
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US-09-513-999C-4639
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Best Local Similarity 84.2%; Pred. No. 6e-07;
Matches 16; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
Qy 1 PRGNPDVANYNFFPRKPK 19
Db 100 PRGXPDVAXYNNFFPRKCK 118
RESULT 15
US-09-513-999C-4163
Sequence 4163, Application US/09513999C
Patent No. 6783961
GENERAL INFORMATION:
APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Duclert, A.
APPLICANT: Giordano, J.Y.
TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
Patent No. 6783961
FILE REFERENCE: 59.US2.REG
CURRENT APPLICATION NUMBER: US/09/513,999C
CURRENT FILING DATE: 2000-02-24
PRIOR APPLICATION NUMBER: US 60/122,487
PRIOR FILING DATE: 1999-02-26
NUMBER OF SEQ ID NOS: 36681
SOFTWARE: Patent.pm
SEQ ID NO 4163
LENGTH: 135
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: SIGNAL
LOCATION: -17...-1
OTHER INFORMATION: score 13
OTHER INFORMATION: seq VLCAVCLLPGLA/LP
FEATURE:
NAME/KEY: UNSURE
LOCATION: 60
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US-09-513-999C-4163
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Matches 13; Conservative 1; Mismatches 5; Indels 0; Gaps 0;
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Db 85 PRGXPDVAXYNNFFPRKPK 103
Search completed: February 21, 2006, 08:02:40
Job time : 43.5 secs

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GenCore version 5.1.7
Copyright (c) 1993 - 2006 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: February 21, 2006, 18:13:46 ; Search time 146 Seconds
(without alignments)
54.375 Million cell updates/sec

Title: US-10-601-059-11

Perfect score: 114

Sequence: 1 PRCNPDVANYNFFPRPK 19

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Searched: 1867569 seqs, 417829326 residues

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Minimum DB seq length: 0

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Post-processing: Minimum Match 100%

Maximum Match 100%

Listing first 500 summaries

Database :

Published Applications AA_Main:

- 1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep.*
- 2: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep.*
- 3: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep.*
- 4: /cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep.*
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- 6: /cgn2_6/ptodata/1/pubpaa/US11_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
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2	114	100.0	19	4	US-10-153-185-11
3	114	100.0	19	4	US-10-219-561-11
4	114	100.0	19	4	US-10-032-376A-11
5	114	100.0	19	4	US-10-335-207-11
6	114	100.0	19	5	US-10-601-059-11
7	114	100.0	19	6	US-10-219-329-11
8	114	100.0	43	4	US-10-031-488-11
9	114	100.0	43	4	US-10-153-185-15
10	114	100.0	43	4	US-10-219-561-15
11	114	100.0	43	4	US-10-032-376A-15
12	114	100.0	43	4	US-10-335-207-15
13	114	100.0	43	5	US-10-601-059-15
14	114	100.0	43	6	US-10-031-488-15
15	114	100.0	44	4	US-10-219-329-2
16	114	100.0	44	4	US-10-153-185-2
17	114	100.0	44	4	US-10-219-561-2
18	114	100.0	44	4	US-10-032-376A-2
19	114	100.0	44	4	US-10-335-207-2
20	114	100.0	44	5	US-10-601-059-2
21	114	100.0	44	6	US-10-031-488-2
22	114	100.0	75	3	US-09-864-761-37964
23	114	100.0	462	5	US-10-852-707-56
24	114	100.0	468	5	US-10-450-763-54360
25	114	100.0	660	3	US-09-391-104-19
26	114	100.0	660	3	US-09-801-196-35
27	114	100.0	660	3	US-09-918-715-208

28	114	100.0	660	4	US-10-219-329-14	Sequence 14, Appl
29	114	100.0	660	4	US-10-301-822-125	Sequence 125, App
30	114	100.0	660	4	US-10-153-185-14	Sequence 14, Appl
31	114	100.0	660	4	US-10-219-561-14	Sequence 14, Appl
32	114	100.0	660	4	US-10-131-985-25	Sequence 25, Appl
33	114	100.0	660	4	US-10-447-315-3	Sequence 3, Appl
34	114	100.0	660	4	US-10-032-376A-14	Sequence 14, Appl
35	114	100.0	660	4	US-10-335-207-14	Sequence 14, Appl
36	114	100.0	660	4	US-10-480-621-1	Sequence 1, Appl
37	114	100.0	660	4	US-10-474-794-208	Sequence 208, App
38	114	100.0	660	5	US-10-601-059-14	Sequence 14, Appl
39	114	100.0	660	5	US-10-872-198-131	Sequence 131, App
40	114	100.0	660	5	US-10-901-417-25	Sequence 25, Appl
41	114	100.0	660	5	US-10-979-159-208	Sequence 208, App
42	114	100.0	660	5	US-10-287-436A-489	Sequence 489, App
43	114	100.0	660	5	US-10-287-436A-1185	Sequence 1185, App
44	114	100.0	660	6	US-11-021-951-131	Sequence 131, App
45	114	100.0	660	6	US-11-031-488-14	Sequence 14, Appl
46	114	100.0	663	4	US-10-115-223-30	Sequence 30, Appl
47	114	100.0	663	4	US-10-402-212-30	Sequence 30, Appl
48	114	100.0	1330	5	US-10-450-763-54358	Sequence 54358, A

ALIGNMENTS

RESULT 1
US-10-219-329-11
; Sequence 11, Application US/10219329
; Publication No. US20030096757A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Weart, Ilona f.
; TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds
; FILE REFERENCE: 1443.035WO1
; CURRENT FILING DATE: 2002-08-15
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-329-11
Query Match 100.0%; Score 114; DB 4; Length 19;
Best Local Similarity 100.0%; Pred. No. 1.5e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 PRCNPDVANYNFFPRPK 19
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DB 1 PRCNPDVANYNFFPRPK 19
|||||
RESULT 2
US-10-153-185-11
; Sequence 11, Application US/10153185
; Publication No. US20030148959A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT FILING DATE: 2002-08-13
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16

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; NUMBER OF SEQ ID NOS: 20  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 11  
; LENGTH: 19  
; TYPE: PRT  
; ORGANISM: Homo sapiens  
US-10-153-185-11
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Query Match 100.0%; Score 114; DB 4; Length 19;
Best Local Similarity 100.0%; Pred. No. 1.5e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYFFPRKPK 19
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Db 1 PRCGNPDVANYFFPRKPK 19
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RESULT 3
US-10-219-561-11
Sequence 11, Application US/10219561
Publication No. US2003016567A1
GENERAL INFORMATION:
APPLICANT: Quirk, Stephen
APPLICANT: Malik, Sohail
TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
FILE REFERENCE: 1443.008US2
CURRENT APPLICATION NUMBER: US 10/219,561
PRIOR FILING DATE: 2002-08-15
PRIOR APPLICATION NUMBER: US 10/032,376
PRIOR FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: US 10/153,185
PRIOR FILING DATE: 2002-05-21
PRIOR APPLICATION NUMBER: US 60/312,726
PRIOR FILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 21
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 11
LENGTH: 19
TYPE: PRT
ORGANISM: Homo sapiens
US-10-219-561-11

Query Match 100.0%; Score 114; DB 4; Length 19;
Best Local Similarity 100.0%; Pred. No. 1.5e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYFFPRKPK 19
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Db 1 PRCGNPDVANYFFPRKPK 19
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US-10-032-376A-11
Sequence 11, Application US/10032376A
Publication No. US20040127420A1
GENERAL INFORMATION:
APPLICANT: Quirk, Steven
TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing
FILE REFERENCE: 1443.008US1
CURRENT APPLICATION NUMBER: US/10/032,376A
CURRENT FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: 60/312,726
PRIOR FILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 20
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 11
LENGTH: 19
TYPE: PRT
ORGANISM: Homo sapiens
US-10-032-376A-11

Query Match 100.0%; Score 114; DB 4; Length 19;
Best Local Similarity 100.0%; Pred. No. 1.5e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYFFPRKPK 19
 |
Db 1 PRCGNPDVANYFFPRKPK 19
 |

```
Db      1  PRCGNPDVANYNFFPRPK 19
|||||
RESULT 7
US-11-031-488-11
; Sequence 11, Application US/11031488
; Publication No. US20050239710A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/11/031.488
; CURRENT FILING DATE: 2005-01-07
; PRIOR APPLICATION NUMBER: US/10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-031-488-11

Query Match      100.0%; Score 114; DB 6; Length 19;
Best Local Similarity 100.0%; Pred. No. 1.5e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  PRCGNPDVANYNFFPRPK 19
|||||
Db      1  PRCGNPDVANYNFFPRPK 19
|||||

RESULT 8
US-10-219-329-15
; Sequence 15, Application US/10219329
; Publication No. US2003009675A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Weart, Ilona f.
; TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds
; FILE REFERENCE: 1443.035W01
; CURRENT APPLICATION NUMBER: US/10/219,329
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-329-15

Query Match      100.0%; Score 114; DB 4; Length 43;
Best Local Similarity 100.0%; Pred. No. 3.3e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  PRCGNPDVANYNFFPRPK 19
|||||
Db      24  PRCGNPDVANYNFFPRPK 42
|||||

RESULT 9
US-10-153-185-15
; Sequence 15, Application US/10153185
; Publication No. US20040127420A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Steven
; TITLE OF INVENTION: Metalloprotease Inhibitors for Wound Healing
; FILE REFERENCE: 1443.008US1
; CURRENT APPLICATION NUMBER: US/10/032,376A
```

```
; CURRENT FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-032-376A-15

Query Match      100.0%; Score 114; DB 4; Length 43;
Best Local Similarity 100.0%; Pred. No. 3.3e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  PRCGNPDVANYNFFPRPK 19
Db      24  PRCGNPDVANYNFFPRPK 42

RESULT 12
US-10-335-207-15
; Sequence 15, Application US/10335207
; Publication No. US20040127421A1
; GENERAL INFORMATION:
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Method to Increase Fibronectin
; FILE REFERENCE: 1443.047US1
; CURRENT APPLICATION NUMBER: US/10/335,207
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-335-207-15

Query Match      100.0%; Score 114; DB 4; Length 43;
Best Local Similarity 100.0%; Pred. No. 3.3e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  PRCGNPDVANYNFFPRPK 19
Db      24  PRCGNPDVANYNFFPRPK 42

RESULT 13
US-10-601-059-15
; Sequence 15, Application US/10601059
; Publication No. US20040259802A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shu-Ping
; APPLICANT: Quirk, Stephen
; APPLICANT: Kimberly-Clark Worldwide, Inc.
; TITLE OF INVENTION: Anti-Chondrosarcoma Compounds
; FILE REFERENCE: 1443.064US1
; CURRENT APPLICATION NUMBER: US/10/601,059
; CURRENT FILING DATE: 2003-06-20
; PRIOR APPLICATION NUMBER: US 10/335,207
; PRIOR FILING DATE: 2002-12-30
; PRIOR APPLICATION NUMBER: US 10/219,329
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: PCT/US02/26319
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21

; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-329-2

Query Match      100.0%; Score 114; DB 6; Length 43;
Best Local Similarity 100.0%; Pred. No. 3.3e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  PRCGNPDVANYNFFPRPK 19
Db      24  PRCGNPDVANYNFFPRPK 42

RESULT 14
US-11-031-488-15
; Sequence 15, Application US/11031488
; Publication No. US20050239710A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/11/031,488
; CURRENT FILING DATE: 2005-01-07
; PRIOR APPLICATION NUMBER: US/10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-031-488-15

Query Match      100.0%; Score 114; DB 6; Length 43;
Best Local Similarity 100.0%; Pred. No. 3.3e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  PRCGNPDVANYNFFPRPK 19
Db      24  PRCGNPDVANYNFFPRPK 42

RESULT 15
US-10-219-329-2
; Sequence 2, Application US/10219329
; Publication No. US20030096757A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Weart, Ilona f.
; TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds
; FILE REFERENCE: 1443.035WO1
; CURRENT APPLICATION NUMBER: US/10/219,329
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-329-2
```

Query Match 100.0%; Score 114; DB 4; Length 44;
Best Local Similarity 100.0%; Pred. No. 3.4e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGPNPDVANYNFFPRKPK 19
Db 24 PRGPNPDVANYNFFPRKPK 42
|||||

RESULT 16

US-10-153-185-2
; Sequence 2, Application US/10153185
; Publication No. US20030148959A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; CURRENT FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-2

Query Match 100.0%; Score 114; DB 4; Length 44;
Best Local Similarity 100.0%; Pred. No. 3.4e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGPNPDVANYNFFPRKPK 19
Db 24 PRGPNPDVANYNFFPRKPK 42
|||||

RESULT 17

US-10-219-561-2
; Sequence 2, Application US/10219561
; Publication No. US20030166567A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Villanueva, Julie M.
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.008US2
; CURRENT APPLICATION NUMBER: US/10/219,561
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-561-2

Query Match 100.0%; Score 114; DB 4; Length 44;
Best Local Similarity 100.0%; Pred. No. 3.4e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGPNPDVANYNFFPRKPK 19
|||||

Db 24 PRGPNPDVANYNFFPRKPK 42

RESULT 18

US-10-032-376A-2
; Sequence 2, Application US/10032376A
; Publication No. US20040127420A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Steven
; TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing
; FILE REFERENCE: 1443.008US1
; CURRENT APPLICATION NUMBER: US/10/032,376A
; CURRENT FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-032-376A-2

Query Match 100.0%; Score 114; DB 4; Length 44;
Best Local Similarity 100.0%; Pred. No. 3.4e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGPNPDVANYNFFPRKPK 19
Db 24 PRGPNPDVANYNFFPRKPK 42
|||||

RESULT 19

US-10-335-207-2
; Sequence 2, Application US/10335207
; Publication No. US20040127421A1
; GENERAL INFORMATION:
; APPLICANT: Malik, Sohail
; APPLICANT: Quirk, Stephen
; TITLE OF INVENTION: Method to Increase Fibronectin
; FILE REFERENCE: 1443.047US1
; CURRENT APPLICATION NUMBER: US/10/335,207
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-335-207-2

Query Match 100.0%; Score 114; DB 4; Length 44;
Best Local Similarity 100.0%; Pred. No. 3.4e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGPNPDVANYNFFPRKPK 19
Db 24 PRGPNPDVANYNFFPRKPK 42
|||||

RESULT 20

US-10-601-059-2
; Sequence 2, Application US/10601059
; Publication No. US20040259802A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shu-Ping
; APPLICANT: Quirk, Stephen
; APPLICANT: Kimberly-Clark Worldwide, Inc.
; TITLE OF INVENTION: Anti-Chondrosarcoma Compounds
; FILE REFERENCE: 1443.064US1
; CURRENT APPLICATION NUMBER: US/10/601,059
; CURRENT FILING DATE: 2003-06-20
; PRIOR APPLICATION NUMBER: US 10/335,207

;
; PRIOR FILING DATE: 2002-12-30
; PRIOR APPLICATION NUMBER: US 10/219,329
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: PCT/US02/26319
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-601-059-2

Query Match 100.0%; Score 114; DB 5; Length 44;
Best Local Similarity 100.0%; Pred. No. 3.4e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRGPNPDVANYNFFPRKPK 19
Db 24 PRGPNPDVANYNFFPRKPK 42

RESULT 21
US-11-031-488-2
; Sequence 2, Application US/11031488
; Publication No. US2005029710A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/11/031,488
; CURRENT FILING DATE: 2005-01-07
; PRIOR APPLICATION NUMBER: US/10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-031-488-2

Query Match 100.0%; Score 114; DB 6; Length 44;
Best Local Similarity 100.0%; Pred. No. 3.4e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRGPNPDVANYNFFPRKPK 19
Db 24 PRGPNPDVANYNFFPRKPK 42

RESULT 22
US-09-864-761-37964
; Sequence 37964, Application US/09864761
; Patent No. US20020048763A1
; GENERAL INFORMATION:
; APPLICANT: Penn, Sharron G.
; APPLICANT: Rank, David R.
; APPLICANT: Hanzel, David K.
; APPLICANT: Chen, Wensheng
; TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
; TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY

;
; FILE REFERENCE: Aeomica-X-1
; CURRENT APPLICATION NUMBER: US/09/864,761
; CURRENT FILING DATE: 2001-05-23
; PRIOR APPLICATION NUMBER: US 60/180,312
; PRIOR FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: US 60/207,456
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: US 09/632,366
; PRIOR FILING DATE: 2000-08-03
; PRIOR APPLICATION NUMBER: GB 24263.6
; PRIOR FILING DATE: 2000-10-04
; PRIOR APPLICATION NUMBER: US 60/236,359
; PRIOR FILING DATE: 2000-09-27
; PRIOR APPLICATION NUMBER: PCT/US01/00666
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00667
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00664
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00669
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00665
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00668
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00663
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00662
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00661
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00670
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: US 60/234,687
; PRIOR FILING DATE: 2000-09-21
; PRIOR APPLICATION NUMBER: US 09/608,408
; PRIOR FILING DATE: 2000-06-30
; PRIOR APPLICATION NUMBER: US 09/774,203
; PRIOR FILING DATE: 2001-01-29
; NUMBER OF SEQ ID NOS: 49117
; SOFTWARE: Anomax Sequence Listing Engine vers. 1.1
; SEQ ID NO 37964
; LENGTH: 75
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: MAP TO AC007336.2
; OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 1.1
; OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 1.5
; OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 2
; OTHER INFORMATION: EST HUMAN HIT: AI752577.1, EVALUATE 1.00e-41
; OTHER INFORMATION: SWISSPROT HIT: P33436, EVALUATE 1.00e-42
US-09-864-761-37964

Query Match 100.0%; Score 114; DB 3; Length 75;
Best Local Similarity 100.0%; Pred. No. 5.7e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRGPNPDVANYNFFPRKPK 19
Db 49 PRGPNPDVANYNFFPRKPK 67

RESULT 23
US-10-852-707-56
; Sequence 56, Application US/10852707
; Publication No. US20050142572A1
; GENERAL INFORMATION:
; APPLICANT: Macina, Roberto
; APPLICANT: Turner, Leah
; APPLICANT: Sun, Yongming
; TITLE OF INVENTION: Compositions, Splice Variants and Methods Relating to Lung Specific;
; TITLE OF INVENTION: Nucleic Acids and Proteins

```
; FILE REFERENCE: DEX-0486
; CURRENT APPLICATION NUMBER: US/10/852,707
; CURRENT FILING DATE: 2004-05-24
; PRIOR APPLICATION NUMBER: US 60/473,941
; PRIOR FILING DATE: 2003-05-22
; NUMBER OF SEQ ID NOS: 138
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 56
; LENGTH: 462
; TYPE: PRT
; ORGANISM: Homo sapien
; US-10-852-707-56

Query Match      100.0%; Score 114; DB 5; Length 462;
Best Local Similarity 100.0%; Pred. No. 3.5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGCPDVPVNYNFFPRKPK 19
Db 100 PRGCPDVPVNYNFFPRKPK 118

RESULT 24
US-10-450-763-54360
; Sequence 54360, Application US/10450763
; Publication No. US20050196754A1
; GENERAL INFORMATION:
; APPLICANT: Hyseq, Inc
; TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES
; FILE REFERENCE: 790CIP3/US
; CURRENT APPLICATION NUMBER: US/10/450,763
; CURRENT FILING DATE: 2003-06-11
; PRIOR APPLICATION NUMBER: PCT/US01/08631
; PRIOR FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: 09/540,217
; PRIOR FILING DATE: 2000-03-31
; PRIOR APPLICATION NUMBER: 09/649,167
; PRIOR FILING DATE: 2000-08-23
; NUMBER OF SEQ ID NOS: 60736
; SOFTWARE: Custom
; SEQ ID NO 54360
; LENGTH: 468
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: DOMAIN
; LOCATION: (221)..(258)
; OTHER INFORMATION: Type II fibronectin collagen-binding domain proteins domain
; OTHER INFORMATION: identified by eMATRIX, accession number BL00023, p-value=4.682e-3
; OTHER INFORMATION: raw score of 24.31
; FEATURE:
; NAME/KEY: DOMAIN
; LOCATION: (167)..(264)
; OTHER INFORMATION: Fibronectin type II domain identified by Pfam, accession name
; OTHER INFORMATION: fn2, E-value=4.4e-55, Pfam score of 147.1
; FEATURE:
; NAME/KEY: misc.feature
; LOCATION: (1)...(468)
; OTHER INFORMATION: Xaa = X or * as defined in Table 2
; US-10-450-763-54360

Query Match      100.0%; Score 114; DB 5; Length 468;
Best Local Similarity 100.0%; Pred. No. 3.5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGCPDVPVNYNFFPRKPK 19
Db 86 PRGCPDVPVNYNFFPRKPK 104

RESULT 25
US-09-391-104-19
; Sequence 19, Application US/09391104
```

```
; Publication No. US20020031817A1
; GENERAL INFORMATION:
; APPLICANT: Abbott Laboratories
; APPLICANT: Falduto, Michael T.
; APPLICANT: Magnuson, Scott R.
; APPLICANT: Morgan, Douglas W.
; TITLE OF INVENTION: HUMAN MATRIX METALLOPROTEINASE GENE,
; TITLE OF INVENTION: OF USING SAME
; FILE REFERENCE: 6073.US.P1
; CURRENT APPLICATION NUMBER: US/09/391,104
; CURRENT FILING DATE: 1999-09-07
; PRIOR APPLICATION NUMBER: US 08/814,394
; PRIOR FILING DATE: 1997-03-11
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 19
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-391-104-19

Query Match      100.0%; Score 114; DB 3; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGCPDVPVNYNFFPRKPK 19
Db 100 PRGCPDVPVNYNFFPRKPK 118

RESULT 26
US-09-801-196-35
; Sequence 35, Application US/09801196
; Patent No. US20020037827A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Kai
; APPLICANT: Smith, Ryan
; APPLICANT: Rajardo, Mark
; APPLICANT: Moss, Patrick
; TITLE OF INVENTION: A NOVEL MATRIX METALLOPROTEINASE (MMP-25)
; TITLE OF INVENTION: EXPRESSED IN SKIN CELLS
; FILE REFERENCE: 240083.509
; CURRENT APPLICATION NUMBER: US/09/801,196
; CURRENT FILING DATE: 2001-03-06
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 35
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-801-196-35

Query Match      100.0%; Score 114; DB 3; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGCPDVPVNYNFFPRKPK 19
Db 100 PRGCPDVPVNYNFFPRKPK 118

RESULT 27
US-09-918-715-208
; Sequence 208, Application US/09918715
; Publication No. US20030017157A1
; GENERAL INFORMATION:
; APPLICANT: Brad St. Croix
; APPLICANT: Bert Vogelstein
; APPLICANT: Kenneth Kinzler
; TITLE OF INVENTION: ENDOTHELIAL CELL EXPRESSION PATTERNS
; FILE REFERENCE: 1107.00134
; CURRENT APPLICATION NUMBER: US/09/918,715
```

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; CURRENT FILING DATE: 2001-08-01
; PRIOR APPLICATION NUMBER: 60/222,599
; PRIOR FILING DATE: 2000-08-02
; PRIOR APPLICATION NUMBER: 60/224,360
; PRIOR FILING DATE: 2000-08-11
; PRIOR APPLICATION NUMBER: 60/282,850
; PRIOR FILING DATE: 2000-04-11
; NUMBER OF SEQ ID NOS: 358
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 208
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-918-715-208

Query Match      100.0%; Score 114; DB 3; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  PRCGNPDVANYNFFPRPK 19
      |||||||
Db      100  PRCGNPDVANYNFFPRPK 118

RESULT 28
US-10-219-329-14
; Sequence 14, Application US/10219329
; Publication No. US20030096757A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds
; FILE REFERENCE: 1443.035WO1
; CURRENT APPLICATION NUMBER: US/10/219,329
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-329-14

Query Match      100.0%; Score 114; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  PRCGNPDVANYNFFPRPK 19
      |||||||
Db      100  PRCGNPDVANYNFFPRPK 118

RESULT 29
US-10-301-822-125
; Sequence 125, Application US/10301822
; Publication No. US20030148410A1
; GENERAL INFORMATION:
; APPLICANT: Millennium Pharmaceuticals, Inc.
; APPLICANT: Berger, Allison
; APPLICANT: Guillemette, Tracy L.
; APPLICANT: Kamatkar, Shubhangi
; APPLICANT: Schlegel, Robert
; APPLICANT: Monahan, John E.
; APPLICANT: Thibodeau, Stephen N.
; APPLICANT: Burgart, Lawrence J.
; TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
; TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
; TITLE OF INVENTION: THERAPY OF COLON CANCER
; FILE REFERENCE: MPM01-029P2RNM

; CURRENT APPLICATION NUMBER: US/10/301,822
; CURRENT FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US 60/339,971
; PRIOR FILING DATE: 2001-12-10
; PRIOR APPLICATION NUMBER: US 60/361,978
; PRIOR FILING DATE: 2002-03-05
; PRIOR APPLICATION NUMBER: US 60/381,988
; PRIOR FILING DATE: 2002-05-20
; NUMBER OF SEQ ID NOS: 228
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 125
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo Sapiens
US-10-301-822-125

Query Match      100.0%; Score 114; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  PRCGNPDVANYNFFPRPK 19
      |||||||
Db      100  PRCGNPDVANYNFFPRPK 118

RESULT 30
US-10-153-185-14
; Sequence 14, Application US/10153185
; Publication No. US20030148959A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; CURRENT FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-14

Query Match      100.0%; Score 114; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  PRCGNPDVANYNFFPRPK 19
      |||||||
Db      100  PRCGNPDVANYNFFPRPK 118

RESULT 31
US-10-219-561-14
; Sequence 14, Application US/10219561
; Publication No. US20030166567A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; APPLICANT: Villanueva, Julie M.
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.008US2
; CURRENT APPLICATION NUMBER: US/10/219,561
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
```



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; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-561-14

Query Match      100.0%; Score 114; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  PRCGNPDVANYNFFPRKPK 19
Db      100  PRCGNPDVANYNFFPRKPK 118

RESULT 32
US-10-131-985-25
; Sequence 25, Application US/10131985
; Publication No. US20030199440A1
; GENERAL INFORMATION:
; APPLICANT: Dack, Kevin N
; APPLICANT: Davies, Michael J
; APPLICANT: Fish, Paul V
; APPLICANT: Huggins, Jonathan P
; APPLICANT: McIntosh, Fraser S
; APPLICANT: Occleston, Nicholas L
; TITLE OF INVENTION: Composition
; FILE REFERENCE: PCS 10391A
; CURRENT FILING DATE: 2002-04-25
; PRIOR APPLICATION NUMBER: US/10/131,985
; PRIOR FILING DATE: 2000-11-30
; PRIOR APPLICATION NUMBER: GB 9930768.8
; PRIOR FILING DATE: 1999-12-29
; NUMBER OF SEQ ID NOS: 60
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 25
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-131-985-25

Query Match      100.0%; Score 114; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  PRCGNPDVANYNFFPRKPK 19
Db      100  PRCGNPDVANYNFFPRKPK 118

RESULT 33
US-10-447-315-3
; Sequence 3, Application US/10447315
; Publication No. US20040071687A1
; GENERAL INFORMATION:
; APPLICANT: Rafii, Shahin
; APPLICANT: Heisig, Beate
; APPLICANT: Hattori, Koichi
; APPLICANT: Cornell Research Foundation, Inc.
; TITLE OF INVENTION: Adult Stem Cell Recruitment
; FILE REFERENCE: 1676.006US1
; CURRENT APPLICATION NUMBER: US/10/447,315
; CURRENT FILING DATE: 2003-05-28
; PRIOR APPLICATION NUMBER: US 60/383,658
; PRIOR FILING DATE: 2002-05-28
; NUMBER OF SEQ ID NOS: 28
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 3

Query Match      100.0%; Score 114; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  PRCGNPDVANYNFFPRKPK 19
Db      100  PRCGNPDVANYNFFPRKPK 118

RESULT 34
US-10-032-376A-14
; Sequence 14, Application US/10032376A
; Publication No. US20040127420A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Steven
; TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing
; FILE REFERENCE: 1443.008US1
; CURRENT APPLICATION NUMBER: US/10/032,376A
; CURRENT FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-032-376A-14

Query Match      100.0%; Score 114; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  PRCGNPDVANYNFFPRKPK 19
Db      100  PRCGNPDVANYNFFPRKPK 118

RESULT 35
US-10-335-207-14
; Sequence 14, Application US/10335207
; Publication No. US20040127421A1
; GENERAL INFORMATION:
; APPLICANT: Malik, Sohail
; APPLICANT: Quirk, Stephen
; TITLE OF INVENTION: Method to Increase Fibronectin
; FILE REFERENCE: 1443.047US1
; CURRENT APPLICATION NUMBER: US/10/335,207
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-335-207-14

Query Match      100.0%; Score 114; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  PRCGNPDVANYNFFPRKPK 19
Db      100  PRCGNPDVANYNFFPRKPK 118

RESULT 36
US-10-480-621-1
```

; Sequence 1, Application US/10480621
; Publication No. US20040175817A1
; GENERAL INFORMATION:
; APPLICANT: Jepson, Holly
; APPLICANT: Minshull, Claire
; APPLICANT: Paupit, Richard
; APPLICANT: Rowsell, Sian
; TITLE OF INVENTION: A CRYSTALLISED CATALYTIC DOMAIN OF MATRIX
; TITLE OF INVENTION: METALLOPROTEINASE 9 (MMP9) AND THE USE OF
; TITLE OF INVENTION: ITS THREE DIMENSIONAL STRUCTURE TO DESIGN
; TITLE OF INVENTION: MMP9 MODULATORS
; FILE REFERENCE: 06275-377US1
; CURRENT APPLICATION NUMBER: US/10/480,621
; PRIOR FILING DATE: 2003-12-12
; PRIOR APPLICATION NUMBER: PCT/SE02/01266
; PRIOR FILING DATE: 2002-06-24
; PRIOR APPLICATION NUMBER: SE 0102298-7
; PRIOR FILING DATE: 2001-06-27
; NUMBER OF SEQ ID NOS: 2
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-480-621-1

Query Match 100.0%; Score 114; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRKPK 19
Db 100 PRCGNPDVANYNFFPRKPK 118
|||||

RESULT 37

US-10-474-794-208
; Sequence 208, Application US/10474794
; Publication No. US20040213793A1
; GENERAL INFORMATION:
; APPLICANT: Carson-Walter, Eleanor
; APPLICANT: St. Croix, Brad
; APPLICANT: Vogelstein, Bert
; APPLICANT: Kinzler, Kenneth
; TITLE OF INVENTION: ENDOTHELIAL CELL EXPRESSION PATTERNS
; FILE REFERENCE: 1107.00179
; CURRENT APPLICATION NUMBER: US/10/474,794
; CURRENT FILING DATE: 2003-10-14
; PRIOR APPLICATION NUMBER: 60/282,850
; PRIOR FILING DATE: 2001-04-11
; PRIOR APPLICATION NUMBER: 60/308,829
; PRIOR FILING DATE: 2001-08-01
; NUMBER OF SEQ ID NOS: 359
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 208
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-474-794-208

Query Match 100.0%; Score 114; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRKPK 19
Db 100 PRCGNPDVANYNFFPRKPK 118
|||||

RESULT 38

US-10-601-059-14
; Sequence 14, Application US/10601059
; Publication No. US20040259802A1

; GENERAL INFORMATION:
; APPLICANT: Yang, Shu-Ping
; APPLICANT: Quirk, Stephen
; APPLICANT: Kimberly-Clark Worldwide, Inc.
; TITLE OF INVENTION: Anti-Chondrosarcoma Compounds
; FILE REFERENCE: 1443.064US1
; CURRENT APPLICATION NUMBER: US/10/601,059
; CURRENT FILING DATE: 2003-06-20
; PRIOR APPLICATION NUMBER: US 10/335,207
; PRIOR FILING DATE: 2002-12-30
; PRIOR APPLICATION NUMBER: US 10/219,329
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: PCT/US02/26319
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-601-059-14

Query Match 100.0%; Score 114; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRKPK 19
Db 100 PRCGNPDVANYNFFPRKPK 118
|||||

RESULT 39

US-10-872-198-131
; Sequence 131, Application US/10872198
; Publication No. US20050002897A1
; GENERAL INFORMATION:
; APPLICANT: Ulrich HAUPTS
; APPLICANT: Andre KOLTERMANN
; APPLICANT: Andreas SCHEIDIG
; APPLICANT: Christian VORTSMEIER
; APPLICANT: Ulrich Kettling
; TITLE OF INVENTION: NEW BIOLOGICAL ENTITIES AND USE THEREOF
; FILE REFERENCE: 04156.000204
; CURRENT APPLICATION NUMBER: US/10/872,198
; CURRENT FILING DATE: 2004-06-18
; PRIOR APPLICATION NUMBER: 60/543,518
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/524,960
; PRIOR FILING DATE: 2003-11-25
; PRIOR APPLICATION NUMBER: EP 04003058
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: EP 03025871
; PRIOR FILING DATE: 2003-11-11
; PRIOR APPLICATION NUMBER: EP 03025851
; PRIOR FILING DATE: 2003-11-10
; PRIOR APPLICATION NUMBER: EP 03013819
; PRIOR FILING DATE: 2003-06-18
; NUMBER OF SEQ ID NOS: 149
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 131
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-872-198-131

Query Match 100.0%; Score 114; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;

Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRCGNPDVANYNFFPRKPK 19
 Db 100 PRCGNPDVANYNFFPRKPK 118

RESULT 40
 US-10-901-417-25
 ; Sequence 25, Application US/10901417
 ; Publication No. US20050026836A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Dack, Kevin N
 ; APPLICANT: Davies, Michael J
 ; APPLICANT: Fish, Paul V
 ; APPLICANT: Huggins, Jonathan P
 ; APPLICANT: McIntosh, Fraser S
 ; APPLICANT: McClellan, Nicholas L
 ; TITLE OF INVENTION: Composition
 ; FILE REFERENCE: PCS 10391A
 ; CURRENT APPLICATION NUMBER: US/10/901,417
 ; CURRENT FILING DATE: 2004-07-28
 ; PRIOR APPLICATION NUMBER: US/10/131,985
 ; PRIOR FILING DATE: 2002-04-25
 ; PRIOR APPLICATION NUMBER: US/09/726,295
 ; PRIOR FILING DATE: 2000-11-30
 ; PRIOR APPLICATION NUMBER: GB 930768.8
 ; PRIOR FILING DATE: 1999-12-29
 ; NUMBER OF SEQ ID NOS: 60
 ; SOFTWARE: PatentIn Ver. 2.1
 ; SEQ ID NO 25
 ; LENGTH: 660
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-10-901-417-25

Query Match 100.0%; Score 114; DB 5; Length 660;
 Best Local Similarity 100.0%; Pred. No. 5e-08;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRKPK 19
 Db 100 PRCGNPDVANYNFFPRKPK 118

RESULT 41
 US-10-979-159-208
 ; Sequence 208, Application US/10979159
 ; Publication No. US20050142138A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Brad St. Croix
 ; APPLICANT: Bert Vogelstein
 ; APPLICANT: Kenneth Kinzler
 ; TITLE OF INVENTION: ENDOTHELIAL CELL EXPRESSION PATTERNS
 ; FILE REFERENCE: 1107.00134
 ; CURRENT APPLICATION NUMBER: US/10/979,159
 ; CURRENT FILING DATE: 2004-11-03
 ; PRIOR APPLICATION NUMBER: US/09/918,715
 ; PRIOR FILING DATE: 2001-08-01
 ; PRIOR APPLICATION NUMBER: 60/222,599
 ; PRIOR FILING DATE: 2000-08-02
 ; PRIOR APPLICATION NUMBER: 60/224,360
 ; PRIOR FILING DATE: 2000-08-11
 ; PRIOR APPLICATION NUMBER: 60/282,850
 ; PRIOR FILING DATE: 2000-04-11
 ; NUMBER OF SEQ ID NOS: 358
 ; SOFTWARE: FastSeq for Windows Version 3.0
 ; SEQ ID NO 208
 ; LENGTH: 660
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-10-979-159-208

Query Match 100.0%; Score 114; DB 5; Length 660;
 Best Local Similarity 100.0%; Pred. No. 5e-08;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRCGNPDVANYNFFPRKPK 19
 Db 100 PRCGNPDVANYNFFPRKPK 118

RESULT 42
 US-10-287-436A-489
 ; Sequence 489, Application US/10287436A
 ; Publication No. US20050202421A1
 ; GENERAL INFORMATION:
 ; APPLICANT: CHILDREN'S HOSPITAL MEDICAL CENTER
 ; TITLE OF INVENTION: METHOD FOR DIAGNOSIS AND TREATMENT OF
 ; FILE REFERENCE: 10872.514696
 ; CURRENT APPLICATION NUMBER: US/10/287,436A
 ; CURRENT FILING DATE: 2002-10-31
 ; PRIOR APPLICATION NUMBER: US 60/336,220
 ; PRIOR FILING DATE: 2001-10-31
 ; NUMBER OF SEQ ID NOS: 1446
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NO 489
 ; LENGTH: 660
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-10-287-436A-489

Query Match 100.0%; Score 114; DB 5; Length 660;
 Best Local Similarity 100.0%; Pred. No. 5e-08;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRKPK 19
 Db 100 PRCGNPDVANYNFFPRKPK 118

RESULT 43
 US-10-287-436A-1185
 ; Sequence 1185, Application US/10287436A
 ; Publication No. US20050202421A1
 ; GENERAL INFORMATION:
 ; APPLICANT: CHILDREN'S HOSPITAL MEDICAL CENTER
 ; TITLE OF INVENTION: METHOD FOR DIAGNOSIS AND TREATMENT OF
 ; FILE REFERENCE: 10872.514696
 ; CURRENT APPLICATION NUMBER: US/10/287,436A
 ; CURRENT FILING DATE: 2002-10-31
 ; PRIOR APPLICATION NUMBER: US 60/336,220
 ; PRIOR FILING DATE: 2001-10-31
 ; NUMBER OF SEQ ID NOS: 1446
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NO 1185
 ; LENGTH: 660
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-10-287-436A-1185

Query Match 100.0%; Score 114; DB 5; Length 660;
 Best Local Similarity 100.0%; Pred. No. 5e-08;
 Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRKPK 19
 Db 100 PRCGNPDVANYNFFPRKPK 118

RESULT 44
 US-11-021-951-131
 ; Sequence 131, Application US/11021951
 ; Publication No. US20050175581A1

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; GENERAL INFORMATION:
; APPLICANT: HAUPTS, Ulrich
; APPLICANT: KOLTERMANN, Andre
; APPLICANT: SCHEIDIG, Andreas
; APPLICANT: VOTSMEIER, Christian
; APPLICANT: Kettling, Ulrich
; APPLICANT: COCO, Wayne Michael
; TITLE OF INVENTION: New Biological Entities And The Pharmaceutical
; TITLE OF INVENTION: And Diagnostic Use Thereof
; FILE REFERENCE: 04156.0002U5
; CURRENT APPLICATION NUMBER: US/11/021,951
; CURRENT FILING DATE: 2004-12-22
; PRIOR APPLICATION NUMBER: 10/872,198
; PRIOR FILING DATE: 2004-06-18
; PRIOR APPLICATION NUMBER: 60/543,518
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/524,960
; PRIOR FILING DATE: 2003-11-25
; PRIOR APPLICATION NUMBER: EP 04003058
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: EP 03025871
; PRIOR FILING DATE: 2003-11-11
; PRIOR APPLICATION NUMBER: EP 03025851
; PRIOR FILING DATE: 2003-11-10
; PRIOR APPLICATION NUMBER: EP 03013819
; PRIOR FILING DATE: 2003-06-18
; NUMBER OF SEQ ID NOS: 191
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 131
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-021-951-131

Query Match      100.0%; Score 114; DB 6; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  PRCGNPDVANYNFFPRKPK 19
Db      100  PRCGNPDVANYNFFPRKPK 118

RESULT 45
US-11-031-488-14
; Sequence 14, Application US/11031488
; Publication No. US20050239710A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034U51
; CURRENT APPLICATION NUMBER: US/11/031,488
; CURRENT FILING DATE: 2005-01-07
; PRIOR APPLICATION NUMBER: US/10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Fast-SEQ for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-031-488-14

Query Match      100.0%; Score 114; DB 6; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  PRCGNPDVANYNFFPRKPK 19
Db      100  PRCGNPDVANYNFFPRKPK 118

RESULT 46
US-10-115-223-30
; Sequence 30, Application US/10115223
; Publication No. US20030176334A1
; GENERAL INFORMATION:
; APPLICANT: Brooks, Peter
; APPLICANT: Cheresch, David A.
; TITLE OF INVENTION: METHODS AND COMPOSITIONS USEFUL FOR INHIBITION OF
; TITLE OF INVENTION: ANGIOGENESIS
; FILE REFERENCE: MER0049S
; CURRENT APPLICATION NUMBER: US/10/115,223
; CURRENT FILING DATE: 2002-04-02
; PRIOR APPLICATION NUMBER: US/09/194,468
; PRIOR FILING DATE: 1999-03-23
; PRIOR APPLICATION NUMBER: 60/018,773
; PRIOR FILING DATE: 1996-05-31
; PRIOR APPLICATION NUMBER: 60/015,896
; PRIOR FILING DATE: 1996-05-31
; PRIOR APPLICATION NUMBER: PCT/US97/09158
; PRIOR FILING DATE: 1997-05-30
; NUMBER OF SEQ ID NOS: 45
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 30
; LENGTH: 663
; TYPE: PRT
; ORGANISM: Gallus gallus
US-10-115-223-30

Query Match      100.0%; Score 114; DB 4; Length 663;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  PRCGNPDVANYNFFPRKPK 19
Db      97  PRCGNPDVANYNFFPRKPK 115

RESULT 47
US-10-402-212-30
; Sequence 30, Application US/10402212
; Publication No. US20040063790A1
; GENERAL INFORMATION:
; APPLICANT: Brooks, Peter C.
; APPLICANT: Cheresch, David A.
; APPLICANT: Silletti, Steven A.
; TITLE OF INVENTION: The Scripps Research Institute
; TITLE OF INVENTION: METHODS FOR INHIBITION OF ANGIOGENESIS
; FILE REFERENCE: TSRI-419.3
; CURRENT APPLICATION NUMBER: US/10/402,212
; CURRENT FILING DATE: 2003-03-28
; PRIOR APPLICATION NUMBER: 10/115,223
; PRIOR FILING DATE: 2002-04-02
; PRIOR APPLICATION NUMBER: 09/194,468
; PRIOR FILING DATE: 1999-03-23
; PRIOR APPLICATION NUMBER: PCT/US97/09158
; PRIOR FILING DATE: 1997-05-30
; PRIOR APPLICATION NUMBER: 60/018,773
; PRIOR FILING DATE: 1996-05-31
; PRIOR APPLICATION NUMBER: 60/015,869
; PRIOR FILING DATE: 1996-05-31
; NUMBER OF SEQ ID NOS: 47
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 30
; LENGTH: 663
; TYPE: PRT
; ORGANISM: Gallus gallus
US-10-402-212-30

Query Match      100.0%; Score 114; DB 4; Length 663;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  PRCGNPDVANYNFFPRKPK 19
Db      97  PRCGNPDVANYNFFPRKPK 115

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Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVANYNFFPRKPK 19
Db 97 PRCGNPDVANYNFFPRKPK 115

RESULT 48

US-10-450-763-54358
; Sequence 54358, Application US/10450763
; Publication No. US20050196754A1
; GENERAL INFORMATION:
; APPLICANT: Hyseq, Inc
; TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES
; FILE REFERENCE: 790CIP3/US
; CURRENT APPLICATION NUMBER: US/10/450,763
; CURRENT FILING DATE: 2003-06-11
; PRIOR APPLICATION NUMBER: PCT/US01/08631
; PRIOR FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: 09/540,217
; PRIOR FILING DATE: 2000-03-31
; PRIOR APPLICATION NUMBER: 09/649,167
; PRIOR FILING DATE: 2000-08-23
; NUMBER OF SEQ ID NOS: 60736
; SOFTWARE: Custom
; SEQ ID NO 54358
; LENGTH: 1330
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: DOMAIN
; LOCATION: (579)..(616)
; OTHER INFORMATION: Type II fibronectin collagen-binding domain proteins domain
; OTHER INFORMATION: identified by eMATRIX, accession number BL00023, p-value=4.682e-3
; OTHER INFORMATION: raw score of 24.31
; FEATURE:
; NAME/KEY: DOMAIN
; LOCATION: (271)..(451)
; OTHER INFORMATION: Matrixin domain identified by Pfam, accession name
; OTHER INFORMATION: Peptidase_M10, E-value=3.7e-109, Pfam score of 376.1
US-10-450-763-54358

Query Match 100.0%; Score 114; DB 5; Length 1330;
Best Local Similarity 100.0%; Pred. No. 1e-07;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVANYNFFPRKPK 19
Db 318 PRCGNPDVANYNFFPRKPK 336

Search completed: February 21, 2006, 18:35:35
Job time : 147 secs

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OM protein - protein search, using sw model

Run on: February 21, 2006, 08:21:13 ; Search time 12.5 Seconds
(without alignments)
21.644 Million cell updates/sec

Title: US-10-601-059-11

Perfect score: 114

Sequence: 1 PRGCPDVPVANYFFPRKPK 19

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 108093 seqs, 14239677 residues

Total number of hits satisfying chosen parameters: 108093

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database :

Published Applications AA New:*

- 1: /cgm2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep.*
- 2: /cgm2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep.*
- 3: /cgm2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep.*
- 4: /cgm2_6/ptodata/1/pubpaa/PTCT_NEW_PUB.pep.*
- 5: /cgm2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep.*
- 6: /cgm2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep.*
- 7: /cgm2_6/ptodata/1/pubpaa/US11_NEW_PUB.pep.*
- 8: /cgm2_6/ptodata/1/pubpaa/US60_NEW_PUB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	114	100.0	660	7	US-11-186-284-125
2	114	100.0	708	6	US-10-821-234-917
3	82	71.9	483	7	US-11-037-243-79
4	78	68.4	267	6	US-10-995-561-542
5	78	68.4	267	7	US-11-186-284-129
6	63	55.3	444	7	US-11-043-788-244
7	63	55.3	477	7	US-11-186-284-127
8	63	55.3	477	7	US-11-043-788-243
9	51	44.7	513	6	US-10-131-826A-192
10	51	44.7	513	6	US-10-995-561-566
11	49	43.0	19	6	US-10-503-575-150
12	49	43.0	469	7	US-11-186-284-119
13	47	41.2	470	7	US-11-186-284-123
14	45	39.5	225	7	US-11-043-788-278
15	45	39.5	276	7	US-11-043-788-277
16	45	39.5	314	7	US-11-010-238-123
17	45	39.5	360	7	US-11-043-788-276
18	45	39.5	707	7	US-11-186-284-132
19	45	39.5	707	7	US-11-044-640-2
20	45	39.5	707	7	US-11-043-788-275
21	42	36.8	264	6	US-10-495-597-2
22	41.5	36.4	761	7	US-11-057-047-6
23	41	36.0	447	6	US-10-467-657-364
24	41	36.0	1254	6	US-10-528-031-47
25	40	35.1	296	6	US-10-965-972-8

26	40	35.1	509	7	US-11-024-959-393	Sequence 393, Appl
27	40	35.1	520	7	US-11-024-959-272	Sequence 272, Appl
28	40	35.1	756	7	US-11-113-837-20	Sequence 20, Appl
29	39.5	34.6	362	7	US-11-233-683-3	Sequence 3, Appl
30	39.5	34.6	377	6	US-10-999-866-37	Sequence 37, Appl
31	39.5	34.6	377	6	US-10-493-909-24	Sequence 24, Appl
32	39.5	34.6	377	7	US-11-061-821-37	Sequence 37, Appl
33	39.5	34.6	377	7	US-11-102-621-113	Sequence 113, Appl
34	39.5	34.6	377	7	US-11-102-621-115	Sequence 115, Appl
35	39.5	34.6	377	7	US-11-124-620-3	Sequence 3, Appl
36	39	34.2	35	7	US-11-233-683-50	Sequence 50, Appl
37	39	34.2	35	7	US-11-233-683-55	Sequence 55, Appl
38	39	34.2	215	7	US-11-218-821-6	Sequence 6, Appl
39	39	34.2	269	6	US-10-495-597-3	Sequence 3, Appl
40	39	34.2	295	7	US-11-098-686-11159	Sequence 11159, A
41	39	34.2	326	6	US-10-999-866-36	Sequence 36, Appl
42	39	34.2	326	6	US-10-493-909-22	Sequence 22, Appl
43	39	34.2	326	7	US-11-144-248-28	Sequence 28, Appl
44	39	34.2	326	7	US-11-061-821-36	Sequence 36, Appl
45	39	34.2	326	7	US-11-144-222-28	Sequence 28, Appl

ALIGNMENTS

RESULT 1

US-11-186-284-125
; Sequence 125, Application US/11186284
; Publication No. US20050266493A1
; GENERAL INFORMATION:
; APPLICANT: Millennium Pharmaceuticals, Inc.
; APPLICANT: Berger, Allison
; APPLICANT: Guillemette, Tracy L.
; APPLICANT: Kamatkar, Shubhangi
; APPLICANT: Schlegel, Robert
; APPLICANT: Monahan, John E.
; APPLICANT: Thibodeau, Stephen N.
; APPLICANT: Burgart, Lawrence J.
; TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
; TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
; FILE OF INVENTION: THERAPY OF COLON CANCER
; FILE REFERENCE: MEM01-029P2RNM
; CURRENT APPLICATION NUMBER: US/11/186.284
; CURRENT FILING DATE: 2005-07-21
; PRIOR APPLICATION NUMBER: US/10/301,822
; PRIOR FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US 60/339,971
; PRIOR FILING DATE: 2001-12-10
; PRIOR APPLICATION NUMBER: US 60/361,978
; PRIOR FILING DATE: 2002-03-05
; PRIOR APPLICATION NUMBER: US 60/381,988
; PRIOR FILING DATE: 2002-05-20
; NUMBER OF SEQ ID NOS: 228
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 125
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo Sapiens
; US-11-186-284-125

Query Match 100.0%; Score 114; DB 7; Length 660;

Best Local Similarity 100.0%; Pred. No. 1e-09;

Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGCPDVPVANYFFPRKPK 19

Db 100 PRGCPDVPVANYFFPRKPK 118

RESULT 2

US-10-821-234-917

; Sequence 917, Application US/10821234

; Publication No. US20050255114A1

```
; GENERAL INFORMATION:
; APPLICANT: Labat, Ivan
; APPLICANT: Stache-Crain, Birgit
; APPLICANT: Andarmani, Susan
; APPLICANT: Tang, Y. Tom
; TITLE OF INVENTION: Methods for Diagnosis and Treatment of Preeclampsia
; FILE REFERENCE: 821A
; CURRENT APPLICATION NUMBER: US/10/821,234
; CURRENT FILING DATE: 2004-04-07
; PRIOR APPLICATION NUMBER: US 60/462,047
; PRIOR FILING DATE: 2003-04-07
; NUMBER OF SEQ ID NOS: 1704
; SOFTWARE: pt_seq_genes Version 1.0
; SEQ ID NO 917
; LENGTH: 708
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-821-234-917

Query Match      100.0%; Score 114; DB 6; Length 708;
Best Local Similarity 100.0%; Pred. No. 1.1e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRPK 19
Db 148 PRCGNPDVANYNFFPRPK 166

RESULT 3
US-11-037-243-79
; Sequence 79, Application US/11037243
; Publication No. US20050287546A1
; GENERAL INFORMATION:
; APPLICANT: PLOWMAN, GREGORY
; APPLICANT: WHYTE, DAVID
; APPLICANT: CAENEPEEL, SEAN
; APPLICANT: CHARDCZAK, GLEN
; APPLICANT: MANNING, GERARD
; APPLICANT: SUDARSANAM, SUCHA
; TITLE OF INVENTION: NOVEL PROTEASES
; FILE REFERENCE: 038602/1214
; CURRENT APPLICATION NUMBER: US/11/037,243
; CURRENT FILING DATE: 2005-05-26
; PRIOR APPLICATION NUMBER: US/09/888,615
; PRIOR FILING DATE: 2001-06-26
; PRIOR APPLICATION NUMBER: 60/214,047
; PRIOR FILING DATE: 2000-06-26
; NUMBER OF SEQ ID NOS: 150
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 79
; LENGTH: 483
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-037-243-79

Query Match      71.9%; Score 82; DB 7; Length 483;
Best Local Similarity 73.7%; Pred. No. 4.4e-05;
Matches 14; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRPK 19
Db 98 PRCGVDPVANYRLFPGEPK 116

RESULT 4
US-10-995-561-542
; Sequence 542, Application US/10995561
; Publication No. US20050272054A1
; GENERAL INFORMATION:
; APPLICANT: CARGILL, Michele et al.
; TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
; TITLE OF INVENTION: CARDIOVASCULAR DISORDERS AND DRUG RESPONSE, METHODS OF
; TITLE OF INVENTION: DETECTION AND USES THEREOF
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; FILE REFERENCE: CL001559
; CURRENT APPLICATION NUMBER: US/10/995,561
; CURRENT FILING DATE: 2004-11-24
; NUMBER OF SEQ ID NOS: 85702
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 542
; LENGTH: 267
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-995-561-542

Query Match      68.4%; Score 78; DB 6; Length 267;
Best Local Similarity 68.4%; Pred. No. 9.5e-05;
Matches 13; Conservative 1; Mismatches 5; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRPK 19
Db 85 PRCGVDPVAEYSLFPNSPK 103

RESULT 5
US-11-186-284-129
; Sequence 129, Application US/11186284
; Publication No. US20050266493A1
; GENERAL INFORMATION:
; APPLICANT: Millennium Pharmaceuticals, Inc.
; APPLICANT: Berger, Allison
; APPLICANT: Guillemette, Tracy L.
; APPLICANT: Kamatkar, Shubhangi
; APPLICANT: Schlegel, Robert
; APPLICANT: Monahan, John E.
; APPLICANT: Thibodeau, Stephen N.
; APPLICANT: Burgart, Lawrence J.
; TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
; TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
; TITLE OF INVENTION: THERAPY OF COLON CANCER
; FILE REFERENCE: MPM01-029P2RNM
; CURRENT APPLICATION NUMBER: US/11/186,284
; CURRENT FILING DATE: 2005-07-21
; PRIOR APPLICATION NUMBER: US/10/301,822
; PRIOR FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US 60/339,971
; PRIOR FILING DATE: 2001-12-10
; PRIOR APPLICATION NUMBER: US 60/361,978
; PRIOR FILING DATE: 2002-03-05
; PRIOR APPLICATION NUMBER: US 60/381,988
; PRIOR FILING DATE: 2002-05-20
; NUMBER OF SEQ ID NOS: 228
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 129
; LENGTH: 267
; TYPE: PRT
; ORGANISM: Homo Sapiens
US-11-186-284-129

Query Match      68.4%; Score 78; DB 7; Length 267;
Best Local Similarity 68.4%; Pred. No. 9.5e-05;
Matches 13; Conservative 1; Mismatches 5; Indels 0; Gaps 0;

QY 1 PRCGNPDVANYNFFPRPK 19
Db 85 PRCGVDPVAEYSLFPNSPK 103

RESULT 6
US-11-043-788-244
; Sequence 244, Application US/11043788
; Publication No. US20060014166A1
; GENERAL INFORMATION:
; APPLICANT: Compugen Ltd
; TITLE OF INVENTION: NOVEL NUCLEOTIDE AND AMINO ACID SEQUENCES, AND ASSAYS AND METHODS
; TITLE OF INVENTION: THEREOF FOR DIAGNOSIS OF ENDOMETRIOSIS
; FILE REFERENCE: 1847.1006
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; CURRENT APPLICATION NUMBER: US/11/043,788
; CURRENT FILING DATE: 2005-01-27
; NUMBER OF SEQ ID NOS: 506
; SEQ ID NO 244
; LENGTH: 444
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-043-788-244

Query Match 55.3%; Score 63; DB 7; Length 444;
Best Local Similarity 57.9%; Pred. No. 0.027;
Matches 11; Conservative 2; Mismatches 6; Indels 0; Gaps 0;

Qy 1 PRCGNPDVANYNFFPRPKP 19
||||| : : : :
Db 57 PRCGPDVGHFRTFPGIPK 75

RESULT 7
US-11-186-284-127
; Sequence 127, Application US/11186284
; Publication No. US20050266493A1
; GENERAL INFORMATION:
; APPLICANT: Millennium Pharmaceuticals, Inc.
; APPLICANT: Berger, Allison
; APPLICANT: Guillemette, Tracy L.
; APPLICANT: Kamathkar, Shubhangi
; APPLICANT: Schlegel, Robert
; APPLICANT: Monahan, John E.
; APPLICANT: Thibodeau, Stephen N.
; APPLICANT: Burgart, Lawrence J.
; TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
; TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
; TITLE OF INVENTION: THERAPY OF COLON CANCER
; FILE REFERENCE: MP01-029P2RNM
; CURRENT APPLICATION NUMBER: US/11/186,284
; CURRENT FILING DATE: 2005-07-21
; PRIOR APPLICATION NUMBER: US/10/301,822
; PRIOR FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US 60/339,971
; PRIOR FILING DATE: 2001-12-10
; PRIOR APPLICATION NUMBER: US 60/361,978
; PRIOR FILING DATE: 2002-03-05
; PRIOR APPLICATION NUMBER: US 60/381,988
; PRIOR FILING DATE: 2002-05-20
; NUMBER OF SEQ ID NOS: 228
; SOFTWARE: Fast-Seq for Windows Version 4.0
; SEQ ID NO 127
; LENGTH: 477
; TYPE: PRT
; ORGANISM: Homo Sapiens
US-11-186-284-127

Query Match 55.3%; Score 63; DB 7; Length 477;
Best Local Similarity 57.9%; Pred. No. 0.029;
Matches 11; Conservative 2; Mismatches 6; Indels 0; Gaps 0;

Qy 1 PRCGNPDVANYNFFPRPKP 19
||||| : : : :
Db 90 PRCGPDVGHFRTFPGIPK 108

RESULT 8
US-11-043-788-243
; Sequence 243, Application US/11043788
; Publication No. US20060014166A1
; GENERAL INFORMATION:
; APPLICANT: CompuGen Ltd
; TITLE OF INVENTION: NOVEL NUCLEOTIDE AND AMINO ACID SEQUENCES, AND ASSAYS AND METHODS
; TITLE OF INVENTION: THEREOF FOR DIAGNOSIS OF ENDOMETRIOSIS
; FILE REFERENCE: 1847.1006
; CURRENT APPLICATION NUMBER: US/11/043,788
; CURRENT FILING DATE: 2005-01-27

; NUMBER OF SEQ ID NOS: 506
; SEQ ID NO 243
; LENGTH: 477
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-043-788-243

Query Match 55.3%; Score 63; DB 7; Length 477;
Best Local Similarity 57.9%; Pred. No. 0.029;
Matches 11; Conservative 2; Mismatches 6; Indels 0; Gaps 0;

Qy 1 PRCGNPDVANYNFFPRPKP 19
||||| : : : :
Db 90 PRCGPDVGHFRTFPGIPK 108

RESULT 9
US-10-131-826A-192
; Sequence 192, Application US/10131826A
; Publication No. US20050245730A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
; APPLICANT: Beresini, Maureen
; APPLICANT: DeForge, Laura
; APPLICANT: Desnoyers, Luc
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Sherwood, Steven
; APPLICANT: Smith, Victoria
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tamas, Daniel
; APPLICANT: Watanabe, Colin K
; APPLICANT: Wood, William
; APPLICANT: Zhang, Zemin
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
; TITLE OF INVENTION: ACIDS ENCODING THE SAME
; FILE REFERENCE: F3330R1C128
; CURRENT APPLICATION NUMBER: US/10/131,826A
; CURRENT FILING DATE: 2002-04-24
; PRIOR APPLICATION NUMBER: 60/049911
; PRIOR FILING DATE: 1997-06-18
; PRIOR APPLICATION NUMBER: 60/056974
; PRIOR FILING DATE: 1997-08-26
; PRIOR APPLICATION NUMBER: 60/059113
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059115
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059117
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059122
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059184
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059263
; PRIOR FILING DATE: 1997-09-18
; PRIOR APPLICATION NUMBER: 60/059352
; PRIOR FILING DATE: 1997-09-19
; PRIOR APPLICATION NUMBER: 60/059588
; PRIOR FILING DATE: 1997-09-19
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 550
; SEQ ID NO 192
; LENGTH: 513
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-131-826A-192

Query Match 44.7%; Score 51; DB 6; Length 513;
Best Local Similarity 61.5%; Pred. No. 2;

Matches 8; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

Qy 1 PRGPNPDVANYNF 13
| | | | | :
Db 89 PRGCPDVGQGY 101

RESULT 10

US-10-995-561-566
; Sequence 566, Application US/10995561
; Publication No. US20050272054A1
; GENERAL INFORMATION:
; APPLICANT: CARGILL, Michele et al.
; TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
; TITLE OF INVENTION: CARDIOVASCULAR DISORDERS AND DRUG RESPONSE, METHODS OF
; TITLE OF INVENTION: DETECTION AND USES THEREOF
; FILE REFERENCE: CL001559
; CURRENT APPLICATION NUMBER: US/10/995,561
; CURRENT FILING DATE: 2004-11-24
; NUMBER OF SEQ ID NOS: 85702
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 566
; LENGTH: 513
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-995-561-566

Query Match 44.7%; Score 51; DB 6; Length 513;
Best Local Similarity 61.5%; Pred. No. 2;
Matches 8; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

Qy 1 PRGPNPDVANYNF 13
| | | | | :
Db 89 PRGCPDVGQGY 101

RESULT 11

US-10-503-575-150
; Sequence 150, Application US/10503575
; Publication No. US20050244823A1
; GENERAL INFORMATION:
; APPLICANT: Drijfhout, Jan Wouter
; APPLICANT: van Veelen, Petrus Antonius
; APPLICANT: Koning, Fries
; TITLE OF INVENTION: NOVEL EPITOPES FOR CELIAC DISEASE AND AUTOIMMUNE DISEASES, METHOD
; TITLE OF INVENTION: DETECTING THOSE AND NOVEL NON-ANTIGENIC FOOD COMPOUNDS
; FILE REFERENCE: 2799/72843-PCT-US
; CURRENT APPLICATION NUMBER: US/10/503,575
; CURRENT FILING DATE: 2004-08-04
; PRIOR APPLICATION NUMBER: PCT/NL03/00077
; PRIOR FILING DATE: 2003-02-04
; PRIOR APPLICATION NUMBER: EP 02075456.0
; PRIOR FILING DATE: 2002-02-04
; NUMBER OF SEQ ID NOS: 340
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 150
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-503-575-150

Query Match 43.0%; Score 49; DB 6; Length 19;
Best Local Similarity 47.4%; Pred. No. 0.14;
Matches 9; Conservative 2; Mismatches 8; Indels 0; Gaps 0;

Qy 1 PRGPNPDVANYNFPRPKP 19
| | | | | :
Db 1 PRGCPDVGQFVLTEGNPR 19

RESULT 12

US-11-186-284-119
; Sequence 119, Application US/11186284

; Publication No. US20050266493A1
; GENERAL INFORMATION:
; APPLICANT: Millennium Pharmaceuticals, Inc.
; APPLICANT: Berger, Allison
; APPLICANT: Guillemette, Tracy L.
; APPLICANT: Kamatkar, Shubhangi
; APPLICANT: Schlegel, Robert
; APPLICANT: Monahan, John E.
; APPLICANT: Thibodeau, Stephen N.
; APPLICANT: BURGART, Lawrence J.
; TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
; TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
; TITLE OF INVENTION: THERAPY OF COLON CANCER
; FILE REFERENCE: MEM01-029P2RNM
; CURRENT APPLICATION NUMBER: US/11/186,284
; CURRENT FILING DATE: 2005-07-21
; PRIOR APPLICATION NUMBER: US/10/301,822
; PRIOR FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US 60/339,971
; PRIOR FILING DATE: 2001-12-10
; PRIOR APPLICATION NUMBER: US 60/361,978
; PRIOR FILING DATE: 2002-03-05
; PRIOR APPLICATION NUMBER: US 60/381,988
; PRIOR FILING DATE: 2002-05-20
; NUMBER OF SEQ ID NOS: 228
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 119
; LENGTH: 469
; TYPE: PRT
; ORGANISM: Homo Sapiens
US-11-186-284-119

Query Match 43.0%; Score 49; DB 7; Length 469;
Best Local Similarity 47.4%; Pred. No. 3.6;
Matches 9; Conservative 2; Mismatches 8; Indels 0; Gaps 0;

Qy 1 PRGPNPDVANYNFPRPKP 19
| | | | | :
Db 90 PRGCPDVGQFVLTEGNPR 108

RESULT 13

US-11-186-284-123
; Sequence 123, Application US/11186284
; Publication No. US20050266493A1
; GENERAL INFORMATION:
; APPLICANT: Millennium Pharmaceuticals, Inc.
; APPLICANT: Berger, Allison
; APPLICANT: Guillemette, Tracy L.
; APPLICANT: Kamatkar, Shubhangi
; APPLICANT: Schlegel, Robert
; APPLICANT: Monahan, John E.
; APPLICANT: Thibodeau, Stephen N.
; APPLICANT: BURGART, Lawrence J.
; TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
; TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
; TITLE OF INVENTION: THERAPY OF COLON CANCER
; FILE REFERENCE: MEM01-029P2RNM
; CURRENT APPLICATION NUMBER: US/11/186,284
; CURRENT FILING DATE: 2005-07-21
; PRIOR APPLICATION NUMBER: US/10/301,822
; PRIOR FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US 60/339,971
; PRIOR FILING DATE: 2001-12-10
; PRIOR APPLICATION NUMBER: US 60/361,978
; PRIOR FILING DATE: 2002-03-05
; PRIOR APPLICATION NUMBER: US 60/381,988
; PRIOR FILING DATE: 2002-05-20
; NUMBER OF SEQ ID NOS: 228
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 123
; LENGTH: 470
; TYPE: PRT

Query Match 43.0%; Score 49; DB 7; Length 469;
Best Local Similarity 47.4%; Pred. No. 3.6;
Matches 9; Conservative 2; Mismatches 8; Indels 0; Gaps 0;

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; ORGANISM: Homo sapiens
US-11-186-284-123

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Best Local Similarity 44.4%; Pred. No. 7.1;
Matches      8; Conservative 3; Mismatches 7; Indels 0; Gaps 0;

QY      1 PRCGNPDVANYNPPPKP 18
      |||||:::|
Db      90 PRCGVPDLHHRFMPGCP 107

RESULT 14
US-11-043-788-278
; Sequence 278, Application US/11043788
; Publication No. US20060014166A1
; GENERAL INFORMATION:
; APPLICANT: Compugen Ltd
; TITLE OF INVENTION: NOVEL NUCLEOTIDE AND AMINO ACID SEQUENCES, AND ASSAYS AND METHODS
; FILE REFERENCE: 1847.1006
; CURRENT APPLICATION NUMBER: US/11/043,788
; CURRENT FILING DATE: 2005-01-27
; NUMBER OF SEQ ID NOS: 506
; SEQ ID NO 278
; LENGTH: 225
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-043-788-278

Query Match      39.5%; Score 45; DB 7; Length 225;
Best Local Similarity 50.0%; Pred. No. 6.8;
Matches      7; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY      1 PRCGNPDVANYNFF 14
      |||||:::|
Db      97 PRCGVPDLGRFQTF 110

RESULT 15
US-11-043-788-277
; Sequence 277, Application US/11043788
; Publication No. US20060014166A1
; GENERAL INFORMATION:
; APPLICANT: Compugen Ltd
; TITLE OF INVENTION: NOVEL NUCLEOTIDE AND AMINO ACID SEQUENCES, AND ASSAYS AND METHODS
; FILE REFERENCE: 1847.1006
; CURRENT APPLICATION NUMBER: US/11/043,788
; CURRENT FILING DATE: 2005-01-27
; NUMBER OF SEQ ID NOS: 506
; SEQ ID NO 277
; LENGTH: 276
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-043-788-277

Query Match      39.5%; Score 45; DB 7; Length 276;
Best Local Similarity 50.0%; Pred. No. 8.3;
Matches      7; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY      1 PRCGNPDVANYNFF 14
      |||||:::|
Db      97 PRCGVPDLGRFQTF 110

Search completed: February 21, 2006, 08:26:28
Job time : 13.5 secs
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GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: February 21, 2006, 07:54:15 ; Search time 13.9737 Seconds
(without alignments)
61.970 Million cell updates/sec

Title: US-10-601-059-12
Perfect score: 54
Sequence: 1 PRGNPDVA 9
Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues
Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_80.*
1: PIR1.*
2: PIR2.*
3: PIR3.*
4: PIR4.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	54	100.0	660	1 A28153	gelatinase A (EC 3
2	54	100.0	662	2 S70365	gelatinase A (EC 3
3	54	100.0	662	2 A42496	gelatinase A (EC 3
4	54	100.0	662	2 S34780	gelatinase A (EC 3
5	54	100.0	663	1 S46492	gelatinase A (EC 3
6	50	92.6	377	2 T00643	zinc metalloprotei
7	50	92.6	378	2 E96724	hypothetical prote
8	45	83.3	267	1 KCHUM	matrilysin (EC 3.4
9	45	83.3	267	2 A57490	matrilysin (EC 3.4
10	45	83.3	468	1 KCRBI	interstitial colla
11	45	83.3	469	1 KCBUI	interstitial colla
12	45	83.3	469	1 KCHUI	interstitial colla
13	45	83.3	469	1 KCPGI	interstitial colla
14	45	83.3	483	2 JC5743	matrix metalloprot
15	45	83.3	521	2 T37252	probable matrix me
16	42	77.8	504	2 P82253	amidophosphoribos
17	41	75.9	82	2 PW0052	pro-matrix metallo
18	41	75.9	462	2 A42401	macrophage elastas
19	41	75.9	466	2 A23685	interstitial colla
20	41	75.9	470	2 A49499	metalloelastase HM
21	41	75.9	471	2 A53711	collagenase 3 (EC
22	41	75.9	472	2 S29243	interstitial colla
23	41	75.9	475	1 KCRTH	stromelysin 1 (EC
24	41	75.9	476	1 JC6505	stromelysin 2 (EC
25	41	75.9	476	1 KCHUS2	stromelysin 2 (EC
26	41	75.9	476	1 KCRUS2	stromelysin 1 (EC
27	41	75.9	477	1 KCHUS1	stromelysin 1 (EC
28	41	75.9	477	1 KCMS1	stromelysin 1 (EC
29	41	75.9	478	1 KCRBS1	stromelysin 1 (EC

ALIGNMENTS

RESULT 1

A28153
Gelatinase A (EC 3.4.24.24) precursor - human
N:Alternate names: collagenase type IV; matrix metalloproteinase 2 (MMP2); progelatinase
C:Species: Homo sapiens (man)
C:Date: 28-Aug-1989 #sequence revision 07-Jul-1995 #text change 09-Jul-2004
C:Accession: A28153; A34202; A42225; A60187; S13858; S39436; A31480; S44432; A61498; S55
R:Collier, I.E.; Wilhelm, S.M.; Eisen, A.Z.; Marmer, B.L.; Grant, G.A.; Seltzer, J.L.; K
J. Biol. Chem. 263, 6579-6587, 1988
A:Title: H-ras oncogene-transformed human bronchial epithelial cells (TBB-1) secrete a s
A:Reference number: A28153; UID:88198218; PMID:2834383
A:Accession: A28153
A:Molecule type: mRNA
A:Residues: 30-660 <COL>
A:Cross-references: UNIPROT:P08253; UNIPARC:UPI0000172CE7; GB:J03210; NID:g180670; PIDN
R:Huttala, P.; Eddy, R.L.; Fan, Y.S.; Byers, M.G.; Shows, T.B.; Tryggvason, K.
Genomics 6, 554-559, 1990
A:Title: Completion of the human type IV collagenase gene.
A:Reference number: A42225; UID:90293047; PMID:2162831
A:Reference number: A34202; UID:90228972; PMID:2156484
A:Accession: A34202
A:Molecule type: DNA
A:Residues: 1-51 <HU2>
A:Cross-references: UNIPARC:UPI000016A6E3; GB:M33789; NID:g180600; PIDN:AAA52027.1; PID:
R:Huttala, P.; Chow, L.T.; Tryggvason, K.
J. Biol. Chem. 265, 11077-11082, 1990
A:Title: Structure of the human type IV collagenase gene.
A:Reference number: A42225; UID:90293047; PMID:2162831
A:Accession: A42225
A:Status: not compared with conceptual translation
A:Molecule type: DNA
A:Residues: 1-51;220-393 <HUH>
A:Cross-references: UNIPARC:UPI000016A6E3; UNIPARC:UPI0000172CE8; GB:M55593; GB:J05471;
A:Note: neither the complete amino acid nor the complete nucleotide sequence is given in
R:Frisch, S.M.; Reich, R.; Collier, I.E.; Genrich, L.T.; Martin, G.; Goldberg, G.I.
Oncogene 5, 75-83, 1990
A:Title: Adenovirus E1A represses protease gene expression and inhibits metastasis of hu
A:Reference number: A60187; UID:90206614; PMID:2157183
A:Accession: A60187
A:Status: not compared with conceptual translation
A:Molecule type: DNA
A:Residues: 1-58 <FRI>
A:Cross-references: UNIPARC:UPI0000172CE9
R:Okada, Y.; Morodomi, T.; Enghild, J.J.; Suzuki, K.; Yasui, A.; Nakanishi, I.; Salvesen
Eur. J. Biochem. 194, 721-730, 1990
A:Title: Matrix metalloproteinase 2 from human rheumatoid synovial fibroblasts. Purifica
A:Reference number: S13858; UID:91099351; PMID:2269296
A:Accession: S13858
A:Molecule type: protein
A:Residues: 30-45;110-124 <OKA>
A:Cross-references: UNIPARC:UPI0000172CEA; UNIPARC:UPI0000172CEB
R:Crabbe, T.; Ioannou, C.; Docherty, A.J.P.
Eur. J. Biochem. 218, 431-438, 1993

30 41 75.9 587 2 S12805
31 41 75.9 616 1 REVQLL
32 41 75.9 616 1 REVQWA
33 41 75.9 707 1 A53796
34 41 75.9 708 2 JC4364
35 41 75.9 708 2 S62907
36 41 75.9 712 1 I46031
37 41 75.9 730 1 I52580
38 41 75.9 730 2 JC1456
39 40 74.1 305 2 T08836
40 40 74.1 477 1 I51645
41 38 70.4 707 1 A34458
42 38 70.4 712 2 AC1058
43 38 70.4 885 2 D86151
44 38 70.4 1531 2 T42218
45 37 68.5 341 2 T51957

envelysin (EC 3.4.
probable RNA-direc
gelatinase B (EC 3
gelatinase B (EC 3
gelatinase B (EC 3
gelatinase B (EC 3
gelatinase B (EC 3
gelatinase B (EC 3
probable metallopr
stromelysin 3 (EC
gelatinase B (EC 3
ribonucleoside-tri
F22M8.8 protein -
elit-1 protein hom
metalloproteinase

A;Title: Human progelatinase A can be activated by autolysis at a rate that is concentrated
A;Reference number: S39436; MUID:94094834; PMID:8269931
A;Accession: S39436
A;Molecule type: protein
A;Residues: 30-44;444-456 <CR2>
A;Cross-references: UNIPARC:UPI00000723BF; UNIPARC:UPI00000172CEC
R;Stetler-Stevenson, W.G.; Kruttsch, H.C.; Wachter, M.P.; Margulies, I.M.K.; Liotta, L.A.
J. Biol. Chem. 284, 1353-1356, 1989
A;Title: The activation of human type IV collagenase proenzyme. Sequence identification
A;Reference number: A31480; MUID:89109136; PMID:2536363
A;Accession: A31480
A;Molecule type: protein
A;Residues: 110-123 <STB>
A;Cross-references: UNIPARC:UPI0000158DA9
R;Crabbe, T.; Smith, B.; O'Connell, J.; Docherty, A.
FEBS Lett. 345, 14-16, 1994
A;Title: Human progelatinase A can be activated by matrilysin.
A;Reference number: S44432; MUID:94252395; PMID:8194591
A;Accession: S44432
A;Molecule type: protein
A;Residues: 110-115 <CRA>
A;Cross-references: UNIPARC:UPI0000172CED
R;Brown, D.; Chwa, M.; Escobar, M.; Kenney, M.C.
Exp. Eye Res. 52, 5-16, 1991
A;Title: Characterization of the major matrix degrading metalloproteinase of human cornea
A;Reference number: A61498; MUID:91330998; PMID:1868885
A;Accession: A61498
A;Molecule type: protein
A;Residues: 'X', '31', 'X', '33-46', 'X', '48-50', 'Q' <BRO>
A;Cross-references: UNIPARC:UPI00000172CEE
A;Experimental source: corneal stroma
R;Itch, Y.; Binner, S.; Nagase, H.
Biochem. J. 308, 645-651, 1995
A;Title: Steps involved in activation of the complex of pro-matrix metalloproteinase 2
A;Reference number: S55327; MUID:95290003; PMID:7772054
A;Accession: S55327
A;Molecule type: protein
A;Residues: 110-114 <ITO>
A;Cross-references: UNIPARC:UPI00000172CEF
C;Genetics:
A;Gene: GDB:MMP2; CLQ4; CLG4A
A;Cross-references: GDB:120592; OMIM:120360
A;Map position: 16q13-16q13
A;Introns: 51/3; 127/2; 178/1; 220/1; 278/1; 336/1; 394/1; 446/1; 491/2; 537/1; 590/2; 6
C;Function:
A;Description: proteolytic cleavage of gelatin type I and collagen types IV, V, VII, and
C;Superfamily: gelatinase A; fibronectin type II repeat homology; hemopexin repeat homol
C;Keywords: extracellular matrix; fibroblast; glycoprotein; hydrolase; metalloproteinase
F;1-29/Domain: signal sequence #status predicted <SIG>
F;30-660/Product: progelatinase A #status predicted <PRO>
F;30-109/Domain: activation peptide #status predicted <ACT>
F;70-219,394-446/Domain: matrix metalloproteinase homology #status atypical <MMP>
F;110-660/Product: gelatinase A #status predicted <MAT>
F;233-390/Region: collagen binding #status predicted
F;233-274/Domain: fibronectin type II repeat homology <2FI>
F;291-332/Domain: fibronectin type II repeat homology <2FE>
F;349-390/Domain: fibronectin type II repeat homology <2FE>
F;463-660/Domain: hemopexin repeat homology <PXN>
F;102,403,407,413/Binding site: zinc, catalytic (Cys, His, His) (inhibited) #status
F;403,407,413/Binding site: zinc, catalytic (His) (active) #status predicted
F;404/Active site: Glu #status predicted
F;469-660/Disulfide bonds: #status predicted
F;573,642/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 100.0%; Score 54; DB 1; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.13;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108
|||||

RESULT 2
S70365
Gelatinase A (EC 3.4.24.24) precursor - rabbit
N;Alternate names: matrix metalloproteinase-2; type IV collagenase
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 21-Apr-1997 #sequence_revision 09-May-1997 #text_change 09-Jul-2004
C;Accession: S70365
R;Matsumoto, S.; Katoh, M.; Watanabe, T.; Masuho, Y.
Biochim. Biophys. Acta 1307, 137-139, 1996
A;Title: Molecular cloning of rabbit matrix metalloproteinase-2 and its broad expression
A;Reference number: S70365; MUID:96283805; PMID:8679695
A;Accession: S70365
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-662 <MAT>
A;Cross-references: UNIPROT:P50757; UNIPARC:UPI000012F23F; EMBL:D63579; NID:G944816; PID:
C;Superfamily: gelatinase A; fibronectin type II repeat homology; hemopexin repeat homol
C;Keywords: hydrolase; metalloproteinase; zinc; zymogen
F;233-274/Domain: fibronectin type II repeat homology <2FI>
F;291-332/Domain: fibronectin type II repeat homology <2FE>
F;349-390/Domain: fibronectin type II repeat homology <2FE>
F;465-662/Domain: hemopexin repeat homology <PXN>
F;102,403,407,413/Binding site: zinc, catalytic (Cys, His, His) (inhibited) #status
F;403,407,413/Binding site: zinc, catalytic (His) (active) #status predicted
F;404/Active site: Glu #status predicted

Query Match 100.0%; Score 54; DB 2; Length 662;
Best Local Similarity 100.0%; Pred. No. 0.13;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108
|||||

RESULT 3
A42496
Gelatinase A (EC 3.4.24.24) precursor - mouse
N;Alternate names: collagenase type IV, 72K
C;Species: Mus musculus (house mouse)
C;Date: 04-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004
C;Accession: A42496
R;Reponen, P.; Sahlberg, C.; Huhtala, P.; Hurskainen, T.; Thesleff, I.; Tryggvason, K.
J. Biol. Chem. 267, 7856-7862, 1992
A;Title: Molecular cloning of murine 72-kDa type IV collagenase and its expression during
A;Reference number: A42496; MUID:92218452; PMID:1373140
A;Accession: A42496
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-662 <REP>
A;Cross-references: UNIPROT:P33434; UNIPARC:UPI000002777E; GB:M84324; NID:G198465; PIDN:/
A;Note: sequence extracted from NCBI backbone (NCBIN:96943, NCBI:96945)
C;Superfamily: gelatinase A; fibronectin type II repeat homology; hemopexin repeat homol
C;Keywords: hydrolase; metalloproteinase; zinc; zymogen
F;233-274/Domain: fibronectin type II repeat homology <2FI>
F;291-332/Domain: fibronectin type II repeat homology <2FE>
F;349-390/Domain: fibronectin type II repeat homology <2FE>
F;465-662/Domain: hemopexin repeat homology <PXN>
F;102,403,407,413/Binding site: zinc, catalytic (Cys, His, His) (inhibited) #status
F;403,407,413/Binding site: zinc, catalytic (His) (active) #status predicted
F;404/Active site: Glu #status predicted

Query Match 100.0%; Score 54; DB 2; Length 662;
Best Local Similarity 100.0%; Pred. No. 0.13;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108
|||||

RESULT 4
S34780

gelatinase A (EC 3.4.24.24) precursor - rat
N;Alternate names: collagenase type IV
C;Species: Rattus norvegicus (Norway rat)
C;Date: 22-Nov-1993 #sequence_revision 01-Dec-1995 #text_change 09-Jul-2004
C;Accession: S34780; S32525
R;Lovett, D.H.
submitted to the EMBL Data Library, June 1993
A;Reference number: S34780
A;Accession: S34780
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-662 <LOV>
A;Cross-references: UNIPROT:P33436; UNIPARC:UPI000012F240; EMBL:X71466; NID:G311750; PID
R;Martti, H.P.; McNeil, L.; Davies, M.; Martin, J.; Lovett, D.H.
Biochem. J. 291, 441-446, 1993
A;Title: Homology cloning of rat 72 kDa type IV collagenase: cytokine and second-messenger
A;Reference number: S32525; MUID:93249363; PMID:7916617
A;Accession: S32525
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-662 <MAR>
A;Cross-references: UNIPARC:UPI0000175D90; EMBL:X71466
C;Superfamily: Gelatinase A; fibronectin type II repeat homology; hemopexin repeat homol
F;233-274/Domain: fibronectin type II repeat homology <2F1>
F;291-332/Domain: fibronectin type II repeat homology <2F8>
F;349-390/Domain: fibronectin type II repeat homology <2F9>
F;465-662/Domain: hemopexin repeat homology <PXM>
F;102,403,407,413/Binding site: zinc, catalytic (Cys, His, His) (inhibited) #status
F;403,407,413/Binding site: zinc, catalytic (His) (active) #status predicted
F;404/Active site: Glu #status predicted

Query Match 100.0%; Score 54; DB 2; Length 662;
Best Local Similarity 100.0%; Pred. No. 0.13; Mismatches 0; Indels 0; Gaps 0;
Matches 9; Conservative 0

QY 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108
|||||

RESULT 5
S46492
gelatinase A (EC 3.4.24.24) precursor - chicken
C;Species: Gallus gallus (chicken)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: S46492
R;Aimes, R.T.; French, D.L.; Quigley, J.P.
Biochem. J. 300, 729-736, 1994
A;Title: Cloning of a 72 kDa matrix metalloproteinase (gelatinase) from chicken embryo f
A;Reference number: S46492; MUID:94280397; PMID:8010954
A;Accession: S46492
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-663 <AIM>
A;Cross-references: UNIPROT:Q90611; UNIPARC:UPI000012F23E; EMBL:U07775; NID:G504475; PID
A;Note: in the authors' translation 205-Asp is shown after residue 201 and, consequently
C;Superfamily: Gelatinase A; fibronectin type II repeat homology; hemopexin repeat homol
F;67-216,391-443/Domain: matrix metalloproteinase homology #status atypical <MMP>
F;230-271/Domain: fibronectin type II repeat homology <2F1>
F;288-329/Domain: fibronectin type II repeat homology <2F8>
F;346-387/Domain: fibronectin type II repeat homology <2F9>
F;466-663/Domain: hemopexin repeat homology <PXM>
F;99,400,404,410/Binding site: zinc, catalytic (Cys, His, His) (inhibited) #status
F;400,404,410/Binding site: zinc, catalytic (His) (active) #status predicted
F;401/Active site: Glu #status predicted

Query Match 100.0%; Score 54; DB 1; Length 663;
Best Local Similarity 100.0%; Pred. No. 0.13; Mismatches 0; Indels 0; Gaps 0;
Matches 9; Conservative 0

QY 1 PRCGNPDVA 9

Db 97 PRCGNPDVA 105
|||||

RESULT 6
T00643
zinc metalloproteinase homolog F316.6 - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 01-Feb-1999 #sequence_revision 01-Feb-1999 #text_change 09-Jul-2004
C;Accession: T00643
R;Federspiel, N.A.; Palm, C.J.; Conway, A.B.; Kurtz, D.B.; Conway, A.R.; Au, M.; Araujo,
; Vysotskaia, V.S.; Yu, G.; Ecker, J.; Theologis, A.; Davis, R.W.
submitted to the EMBL Data Library, February 1998
A;Reference number: Z14197
A;Accession: T00643
A;Status: translated from GB/EMBL/DBJ
A;Molecule type: DNA
A;Residues: 1-377 <FED>
A;Cross-references: UNIPROT:O48680; UNIPARC:UPI000000AB794; EMBL:AC002396; NID:G2749918;
A;Experimental source: cultivar Columbia
C;Genetics:
A;Gene: ATSP:F316.6
A;Map position: 1

Query Match 92.6%; Score 50; DB 2; Length 377;
Best Local Similarity 100.0%; Pred. No. 0.37; Mismatches 0; Indels 0; Gaps 0;
Matches 8; Conservative 0

QY 1 PRCGNPDV 8
Db 114 PRCGNPDV 121
|||||

RESULT 7
E96724
hypothetical protein F20P5.11 [imported] - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 09-Jul-2004
C;Accession: E96724
R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alonso,
Chen, C.W.; Hughes, B.; Conn, L.; Conway, A.B.; Huizar, L.
Nature 408, 816-820, 2000
A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khavkin, E.; Kim, C.
C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziani,
Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon,
ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.
A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.
A;Reference number: A86141; MUID:21016719; PMID:11130712
A;Accession: E96724
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-378 <STO>
A;Cross-references: UNIPROT:O04529; UNIPARC:UPI000000A9048; GB:AE005173; NID:G2194124; PI:
C;Genetics:
A;Gene: F20P5.11
A;Map position: 1

Query Match 92.6%; Score 50; DB 2; Length 378;
Best Local Similarity 100.0%; Pred. No. 0.37; Mismatches 0; Indels 0; Gaps 0;
Matches 8; Conservative 0

QY 1 PRCGNPDV 8
Db 118 PRCGNPDV 125
|||||

RESULT 8
KCHUM
matrilysin (EC 3.4.24.23) precursor - human
N;Alternate names: matrix metalloproteinase 7 (MMP7); probable metalloproteinase
N;Contains: promatrilysin

Qy 1 PRCGNPDA 9
|||||
Db 89 PRCGVPDA 97

RESULT 11

KCBOI
interstitial collagenase (EC 3.4.24.7) precursor - bovine
N/Alternate names: fibroblast collagenase; matrix metalloproteinase 1 (MMP1); tissue col
C/Species: Bos primigenius taurus (cattle)
C/Date: 30-Sep-1992 #sequence_revision 30-Sep-1992 #text_change 09-Jul-2004
C/Accession: S14654; S20336; S14655
R/Tamura, M.; Shimokawa, H.; Sasaki, S.
submitted to the EMBL Data Library, March 1991
A/Reference number: S14654
A/Accession: S14654
A/Molecule type: mRNA
A/Residues: 1-469 <TM>
A/Cross-references: UNIPROT:P28053; UNIPARC:UPI000012P238; EMBL:X58256; NID:g259; PIDN:C
R/Sudbeck, B.D.; Jeffrey, J.J.; Welgus, H.G.; Mechem, R.P.; McCourt, D.; Parke, W.C.
Arch. Biochem. Biophys. 293, 370-376, 1992
A/Title: Purification and characterization of bovine interstitial collagenase and tissue
A/Reference number: S20336; MUID:92161820; PMID:1311165
A/Accession: S20336
A/Molecule type: protein
A/Residues: 19-21, 'FP', 24-29, 'L', 31-34, 'LL', 37-39, 'F', 86-105, 'NPR', 109-112, 'D', 114-125 <
A/Cross-references: UNIPARC:UPI0000172CC8; UNIPARC:UPI0000172CC9
C/Comment: This enzyme cleaves collagens of types I, II, and III at a Gly-Ile site in th
C/Comment: Procollagenase can be activated without removal of the activation peptide. St
tion peptide by other proteinases.
C/Comment: Procollagenase is found in glycosylated and unglycosylated forms, both of whi
C/Function:
A/Description: hydrolyzes collagens, in particular types I, II, III, and X, serpins, and
C/Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloprote
C/Keywords: calcium; extracellular matrix; fibroblast; glycoprotein; hydrolase; metallo
F/1-18/Domain: signal sequence #status predicted <SIG>
F/19-469/Product: procollagenase #status predicted <PRO>
F/19-99/Domain: activation peptide #status predicted <ACT>
F/60-261/Domain: matrix metalloproteinase homology <MMP>
F/90-97/Region: autoinhibitory
F/100-469/Product: interstitial collagenase #status predicted <MAT>
F/272-466/Domain: hemopexin repeat homology <PXN>
F/92,218,222,228/Binding site: zinc, catalytic (Cys, His, His) (inhibited) #status
F/120,143/Binding site: carbohydrate (Asn) (covalent) #status predicted
F/218,222,228/Binding site: zinc, catalytic (His) (active) #status predicted
F/219/Active site: Glu #status predicted
F/278-466/Disulfide bonds: #status predicted

Query Match 83.3%; Score 45; DB 1; Length 469;
Best Local Similarity 88.9%; Pred. No. 3.3;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 PRCGNPDA 9
|||||
Db 90 PRCGVPDA 98

RESULT 12

KCHUI
interstitial collagenase (EC 3.4.24.7) precursor [validated] - human
N/Alternate names: fibroblast collagenase; matrix metalloproteinase 1 (MMP1); tissue col
C/Species: Homo sapiens (man)
C/Date: 13-Aug-1986 #sequence_revision 30-Sep-1992 #text_change 09-Jul-2004
C/Accession: A37308; S22766; I57620; A00996; D23157; A44518; S06132; B60964; S10595; S53
R/Temperton, N.S.; Brown, P.D.; Levy, A.T.; Margulies, I.M.K.; Liotta, L.A.; Stetler-St
Cancer Res. 50, 5431-5437, 1990
A/Title: Cloning and characterization of human tumor cell interstitial collagenase.
A/Reference number: A37308; MUID:90352587; PMID:2167156
A/Accession: A37308
A/Molecule type: mRNA
A/Residues: 1-469 <TM>
A/Cross-references: UNIPROT:P03956; UNIPARC:UPI00000422BA; GB:X54925; NID:g30125; PIDN:C
R/Brinckerhoff, C.E.; Ruby, P.L.; Austin, S.D.; Fini, M.E.; White, H.D.

J. Clin. Invest. 79, 542-546, 1987
A/Title: Molecular cloning of human synovial cell collagenase and selection of a single
A/Reference number: S22766; MUID:87109799; PMID:3027129
A/Accession: S22766
A/Molecule type: DNA
A/Residues: 1-63,65-70 <BRI>
A/Cross-references: UNIPARC:UPI0000172CBC; EMBL:M15996; NID:g180666; PIDN:AAA35700.1; PI
R/Angel, P.; Baumann, I.; Stein, B.; Dellius, H.; Rahmsdorf, H.J.; Herrlich, P.
Mol. Cell. Biol. 7, 2256-2266, 1987
A/Title: 12-O-tetradecanoyl-phorbol-13-acetate induction of the human collagenase gene i
A/Reference number: I57620; MUID:87257941; PMID:3037355
A/Accession: I57620
A/Status: preliminary; translated from GB/EMBL/DBJ
A/Molecule type: DNA
A/Residues: 1-35 <RES>
A/Cross-references: UNIPARC:UPI000016A6ED; GB:M16567; NID:g180668; PIDN:AAA52033.1; PID:
R/Goldberg, G.I.; Wilhelm, S.M.; Kronberger, A.; Bauer, E.A.; Grant, G.A.; Eisen, A.Z.
J. Biol. Chem. 261, 6600-6605, 1986
A/Title: Human fibroblast collagenase. Complete primary structure and homology to an onc
A/Reference number: A00996; MUID:86196089; PMID:3009463
A/Accession: A00996
A/Molecule type: mRNA
A/Residues: 1-114, 'R', 116-409, 'S', 411-469 <COL>
A/Cross-references: UNIPARC:UPI0000141EC4; GB:M13509; NID:g180664; PIDN:AAA35699.1; PID:
A/Note: part of this sequence was confirmed by protein sequencing of the proenzyme
R/Whitham, S.E.; Murphy, G.; Angel, P.; Rahmsdorf, H.J.; Smith, B.J.; Lyons, A.; Harris,
Biochem. J. 240, 913-916, 1986
A/Title: Comparison of human stromelysin and collagenase by cloning and sequence analysi
A/Reference number: A90336; MUID:87156645; PMID:3030290
A/Accession: D29157
A/Molecule type: mRNA
A/Residues: 1-199, 'H', 201-207, 'T', 209-469 <WHI>
A/Cross-references: UNIPARC:UPI0000172CDB; EMBL:X05231; NID:g38266; PIDN:CAA28858.1; PID:
A/Note: parts of this sequence, including the amino end of the proenzyme and of the matu
R/Birkedal-Hansen, B.; Moore, W.G.I.; Taylor, R.E.; Shown, A.S.; Birkedal-Hansen, H.
Biochemistry 27, 6751-6758, 1988
A/Title: Monoclonal antibodies to human fibroblast procollagenase. Inhibition of enzymat
end of the activated enzyme.
A/Reference number: A44518; MUID:89062403; PMID:2461732
A/Accession: A44518
A/Molecule type: protein
A/Residues: 270-305 <BIR>
A/Cross-references: UNIPARC:UPI0000172CBE
R/Clark, I.M.; Cawston, T.E.
Biochem. J. 263, 201-206, 1989
A/Title: Fragments of human fibroblast collagenase. Purification and characterization.
A/Reference number: S06132; MUID:90104231; PMID:2557822
A/Accession: S06132
A/Status: preliminary
A/Molecule type: protein
A/Residues: 100-102, 'P', 104-107, 'XX', 110-112, 270-277, 'X', 279-280, 'X', 282-287 <CLA>
A/Cross-references: UNIPARC:UPI0000172CBF; UNIPARC:UPI0000172CC0
R/Lark, M.W.; Walakowits, L.A.; Shah, T.K.; Vanmiddlesworth, J.; Cameron, P.M.; Lin, T.Y
Connect. Tissue Res. 25, 49-65, 1990
A/Title: Production and purification of prostromelysin and procollagenase from IL-1 beta
A/Reference number: A60964; MUID:91059606; PMID:2173990
A/Accession: B60964
A/Molecule type: protein
A/Residues: 24-35; 100-108; 270-272, 'X', 274, 'X', 276 <LAR>
A/Cross-references: UNIPARC:UPI0000172CC1; UNIPARC:UPI0000172CC2; UNIPARC:UPI0000172CC3
R/Suzuki, K.; Nagase, H.; Ito, A.; Englund, J.J.; Salvesen, G.
Biol. Chem. Hoppe-Seyler 371 (Suppl.), 305-310, 1990
A/Title: The role of matrix metalloproteinase 3 in the stepwise activation of human rheu
A/Reference number: S10595; MUID:90380300; PMID:2169257
A/Accession: S10595
A/Molecule type: protein
A/Residues: 20-102 <SUZ>
A/Cross-references: UNIPARC:UPI0000172CCA
R/Suzuki, K.; Lees, M.; Newlands, G.F.J.; Nagase, H.; Woolley, D.E.
Biochem. J. 305, 301-306, 1995
A/Title: Activation of precursors for matrix metalloproteinases 1 (interstitial collagen
A/Reference number: S53438; MUID:95126921; PMID:7826345
A/Accession: S53438

A;Status: preliminary
A;Molecule type: protein
A;Residues: 20-108 <SU2>
A;Cross-references: UNIPARC:UPI0000172CC5
R;Springman, E.B.; Angleton, E.L.; Birkedal-Hansen, H.; Van Wart, H.E.
Proc. Natl. Acad. Sci. U.S.A. 87, 364-368, 1990
A;Title: Multiple modes of activation of latent human fibroblast collagenase: evidence for
A;Reference number: A44517; MUID:90115877; PMID:2153297
A;Contents: annotation; disulfide bond; activation mechanism
R;Salowe, S.P.; Marcy, A.I.; Cucca, G.C.; Smith, C.K.; Kopka, I.E.; Hagmann, W.K.; Hermes
Biochemistry 31, 4535-4540, 1992
A;Title: Characterization of zinc-binding sites in human stromelysin-1: stoichiometry of
A;Reference number: A43031; MUID:92256384; PMID:1581308
A;Contents: annotation; zinc ligand in proenzyme
A;Note: Cys-92 binds zinc in the proenzyme. Both active and proenzyme forms of the catal
C;Comment: Procollagenase can be activated without removal of the activation peptide. St
tion peptide by other proteinases.
C;Comment: Procollagenase is found in glycosylated and unglycosylated forms, both of whi
C;Genetics:
A;Gene: GDB:MMPL1; CUG
A;Cross-references: GDB:119783; OMIM:120353
A;Map position: 11q22.2-11q22.3
C;Function:
A;Description: hydrolyzes collagens, in particular types I, II, III, and X, serpins, and
C;Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloprote
C;Keywords: calcium; extracellular matrix; fibroblast; glycoprotein; hydrolase; metallo
F;1-19/Domain: signal sequence #status predicted <SIG>
F;20-469/Product: procollagenase #status experimental <PRO>
F;20-99/Domain: activation peptide #status experimental <ACT>
F;60-261/Domain: matrix metalloproteinase homology <MMP>
F;100-469/Product: interstitial collagenase #status predicted <MAT>
F;272-466/Domain: hemopexin repeat homology <PXN>
F;90-97/Region: autoinhibitory
F;100-469/Product: interstitial collagenase #status experimental <MAT>
F;272-466/Domain: hemopexin repeat homology <PXN>
F;92,218,222,228/Binding site: zinc, catalytic (Cys, His, His) (inhibited) #status
F;120,143/Binding site: carboxylate (Asn) (covalent) #status predicted
F;218,222,228/Binding site: zinc, catalytic (His) (active) #status predicted
F;219/Active site: Glu #status predicted
F;269-270/Cleavage site: Pro-Ile (autolytic) #status experimental
F;278-466/Disulfide bonds: #status experimental

Query Match 83.3%; Score 45; DB 1; Length 469;
Best Local Similarity 88.9%; Pred. No. 3.3;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 PRCGNPDA 9
Db 90 PRCGVPDA 98
|||||

RESULT 13
KCPII
Interstitial collagenase (EC 3.4.24.7) precursor [validated] - pig
N;Alternate names: fibroblast collagenase; matrix metalloproteinase 1 (MMP1); tissue col
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 30-Sep-1992 #sequence_revision 30-Sep-1992 #text_change 09-Jul-2004
C;Accession: S15986; S13597
R;Richards, C.D.; Rafferty, J.A.; Reynolds, J.J.; Saklatvala, J.
Matrix 11, 161-167, 1991
A;Title: Porcine collagenase from synovial fibroblasts: cDNA sequence and modulation of
A;Reference number: S15986; MUID:91333421; PMID:1651440
A;Accession: S15986
A;Status: not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 1-469 <RIC>
A;Cross-references: UNIPROT:P21692; UNIPARC:UPI000012F23A
A;Note: part of the sequence, including the amino end of the proenzyme, was confirmed by
R;Clarke, N.J.; O'Hare, M.C.; Cawston, T.E.; Harper, G.P.
Nucleic Acids Res. 18, 6703, 1990
A;Title: Nucleotide sequence of a cDNA for porcine type I collagenase, obtained by PCR.
A;Reference number: S13597; MUID:91067477; PMID:2174547
A;Accession: S13597
A;Molecule type: mRNA
A;Residues: 25-469 <CLA>

A;Cross-references: UNIPARC:UPI000016C6D5; EMBL:X54724; NID:g2016; PIDN:CAA38526.1; PID:9
R;Li, J.; Brick, P.; Blow, D.M.
submitted to the Brookhaven Protein Data Bank, April 1995
A;Reference number: A65568; PDB:1FBL
A;Contents: annotation; X-ray crystallography, 2.5 angstroms, residues 100-466
C;Comment: Procollagenase can be activated without removal of the activation peptide. St
tion peptide by other proteinases.
C;Comment: Procollagenase is found in glycosylated and unglycosylated forms, both of whi
C;Function:
A;Description: hydrolyzes collagens, in particular types I, II, III, and X, serpins, and
A;Note: also hydrolyzes type X collagen, serpins, and alpha-macroglobulins
C;Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloprote
C;Keywords: calcium; extracellular matrix; fibroblast; glycoprotein; hydrolase; metallo
F;1-19/Domain: signal sequence #status predicted <SIG>
F;20-469/Product: procollagenase #status predicted <PRO>
F;20-99/Domain: activation peptide #status experimental <ACT>
F;60-261/Domain: matrix metalloproteinase homology <MMP>
F;100-469/Product: interstitial collagenase #status predicted <MAT>
F;272-466/Domain: hemopexin repeat homology <PXN>
F;92,218,222,228/Binding site: zinc, catalytic (Cys, His, His) (inhibited) #status
F;120,143/Binding site: carboxylate (Asn) (covalent) #status predicted
F;218,222,228/Binding site: zinc, catalytic (His) (active) #status experimental
F;219/Active site: Glu #status predicted
F;278-466/Disulfide bonds: #status experimental

Query Match 83.3%; Score 45; DB 1; Length 469;
Best Local Similarity 88.9%; Pred. No. 3.3;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 PRCGNPDA 9
Db 90 PRCGVPDA 98
|||||

RESULT 14
JCS743
matrix metalloproteinase (EC 3.4.24.-) precursor - pig
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 09-Dec-1997 #sequence_revision 23-Jan-1998 #text_change 09-Jul-2004
C;Accession: JCS743
R;Bartlett, J.D.; Simmer, J.P.; Xue, J.; Margolis, H.C.; Moreno, E.C.
Gene 183, 123-128, 1996
A;Title: Molecular cloning and mRNA tissue distribution of a novel matrix metalloprotein
A;Reference number: JCS743; MUID:97149288; PMID:8996096
A;Accession: JCS743
A;Molecule type: mRNA
A;Residues: 1-483 <BAR>
A;Cross-references: UNIPROT:P79287; UNIPARC:UPI000012F257; GB:U54825; NID:g1800212; PIDN:
A;Experimental source: enamel organ
C;Comment: This enzyme plays a role in enamel biomineralization and development.
C;Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloprote
C;Keywords: hydrolase; metalloproteinase; zinc
F;1-22/Domain: signal sequence #status predicted <SIG>
F;23-483/Product: matrix metalloproteinase #status predicted <MAT>
F;68-271/Domain: matrix metalloproteinase homology <MMP>
F;290-483/Domain: hemopexin repeat homology <PXN>
F;100,226,230,236/Binding site: zinc, catalytic (Cys, His, His) (inhibited) #status
F;226,230,236/Binding site: zinc, catalytic (His) #status predicted
F;227/Active site: Glu #status predicted

Query Match 83.3%; Score 45; DB 2; Length 483;
Best Local Similarity 88.9%; Pred. No. 3.4;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 PRCGNPDA 9
Db 98 PRCGVPDA 106
|||||

RESULT 15
T37252
probable matrix metalloproteinase (EC 3.4.24.-) - Caenorhabditis elegans
C;Species: Caenorhabditis elegans

C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004
C;Accession: T37252
R;Wada, K.; Sato, H.; Kinoh, H.; Kajita, M.; Yamamoto, H.; Seiki, M.
Gene 211, 57-62, 1998
A;Title: Cloning of three Caenorhabditis elegans genes potentially encoding novel matrix
A;Reference number: Z21645; MUID:98241501; PMID:9573338
A;Accession: T37252
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: mRNA
A;Residues: 1-521 <WAD>
A;Cross-references: UNIPROT:O61266; UNIPARC:UPI00000824F5; EMBL:AB007817; NID:g3152405;
A;Experimental source: strain N2
C;Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloprotease
C;Keywords: hydrolase; metalloproteinase

Query Match 83.3%; Score 45; DB 2; Length 521;
Best Local Similarity 87.5%; Fred. NO. 3.7;
Matches 7; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDV 8
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Db 78 PRCGHPDV 85

Search completed: February 21, 2006, 08:01:07
Job time : 13.9737 secs

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RA Whitling M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalley D.E.,
RA Schnarch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [3]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Whole;
RA Klein S., Gerhard D.S.;
RA Submitted (JUL-2005) to the EMBL/GenBank/DBJ databases.
DR EMBL; BC099241; AAH99241.1; -, mRNA.
KW Hypothetical protein.
SQ SEQUENCE 223 AA; 25889 MW; AB815A358ECD68F1 CRC64;

Query Match 100.0%; Score 54; DB 2; Length 223;
Best Local Similarity 100.0%; Pred. No. 0.15; Indels 0; Gaps 0;
Matches 9; Conservative 0; Mismatches 0;

QY 1 PRCGNPDVA 9
DB |||||
96 PRCGNPDVA 104

RESULT 3
Q7SYA5 XENLA
ID Q7SYA5 XENLA PRELIMINARY; PRT; 559 AA.
AC Q7SYA5
DT 01-OCT-2003 (T-EMBLrel. 25, Created)
DT 01-OCT-2003 (T-EMBLrel. 25, Last sequence update)
DT 01-MAR-2004 (T-EMBLrel. 26, Last annotation update)
DE Mmp2-prov protein.
OS Xenopus laevis (African clawed frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidae; Pipidae;
OC Xenopodinae; Xenopus; Xenopus.
OX NCBI_TaxID=8355;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Whole;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Haieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullaly S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettelman M., Madan A., Rodriguez S., Sanchez A.,
RA Whitling M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalley D.E.,
RA Schnarch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Whole;
RA Klein S.B., Strausberg R.L., Wagner L., Pontius J., Clifton S.W.,
RA Richardson P.;
RT "Genetic and genomic tools for Xenopus research: The NIH Xenopus
RT initiative.";
RL Dev. Dyn. 225:384-391(2002).
RN [3]
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RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Whole;
RA Klein S., Strausberg R.;
RA Submitted (JUL-2003) to the EMBL/GenBank/DBJ databases.
DR EMBL; BC054947; AAH54947.1; -, mRNA.
DR HSSP; P08253; IHOV.
DR MEROPS; M10.003; -.
DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
DR GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR InterPro; IPR000562; FN Type II.
DR InterPro; IPR000585; Hemopexin.
DR InterPro; IPR006026; Peptidase_M.
DR InterPro; IPR001818; Pept_M10A_M12B.
DR InterPro; IPR006025; Pept_M_Zn_BS.
DR Pfam; PF00040; fn2; 3.
DR Pfam; PF00045; Hemopexin; 2.
DR Pfam; PF00413; Peptidase_M10; 1.
DR Pfam; PF03933; Peptidase_M10_N; 1.
DR PRINTS; PR00013; FNYPEP1.
DR PRINTS; PR00138; MATR1XIN.
DR ProDom; PD000995; FN_Type_II; 3.
DR SMART; SM00120; HK; 2.
DR SMART; SM00235; ZmC; 1.
DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
DR PROSITE; PS00023; FIBRONECTIN_2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC_PROTEASE; UNKNOWN 1.
SQ SEQUENCE 559 AA; 63084 MW; F27BD8ACE59E4B52 CRC64;

Query Match 100.0%; Score 54; DB 2; Length 559;
Best Local Similarity 100.0%; Pred. No. 0.39; Indels 0; Gaps 0;
Matches 9; Conservative 0; Mismatches 0;

QY 1 PRCGNPDVA 9
DB |||||
96 PRCGNPDVA 104

RESULT 4
Q6GQI1 XENLA
ID Q6GQI1 XENLA PRELIMINARY; PRT; 595 AA.
AC Q6GQI1
DT 05-JUL-2004 (T-EMBLrel. 27, Created)
DT 05-JUL-2004 (T-EMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (T-EMBLrel. 27, Last annotation update)
DE Mmp2-prov protein (Fragment).
DE Name=mmp2-prov;
GN Xenopus laevis (African clawed frog).
OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidae; Pipidae;
OC Xenopodinae; Xenopus; Xenopus.
OX NCBI_TaxID=8355;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Spleen;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Haieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullaly S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettelman M., Madan A., Rodriguez S., Sanchez A.,
RA Whitling M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalley D.E.,
RA Schnarch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [3]
```


DR SMART; SM00235; ZnMc; 1.
DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
DR PRINTS; PR00138; FIBRONECTIN_2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC_PROTEASE; UNKNOWN 1.
SQ SEQUENCE 654 AA; 73956 MW; F9B0755F76B6F8DD CRC64;

Query Match 100.0%; Score 54; DB 2; Length 654;
Best Local Similarity 100.0%; Pred. No. 0.46;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
| | | | | | | | | |
DB 97 PRCGNPDVA 105

RESULT 7
QSFVW8_XENTR QSFVW8_XENTR PRELIMINARY; PRT; 655 AA.
AC QSFVW8;
DT 10-MAY-2005 (TrEMBLrel. 30, Created)
DT 10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
DT 10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
DE MGCI08375 protein.
GN Name=MGCI08375;
OS Xenopus tropicalis (Western clawed frog) (Silurana tropicalis).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidae; Pipidae;
OC Xenopodinae; Xenopus; Silurana.
OX NCBI_TaxID=8364;
RN [1]
RP NUCLEOTIDE SEQUENCE.
TX TISSUE=Whole body;
RC MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Straube R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zebberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Uedini T.B., Toshlyuk S., Carninci P., Frange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahy J., Helton E., Kettelman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Gichwood J., Schmitt J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalish D.E.,
RA Schnurch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "generation and initial analysis of more than 15,000 full-length human
and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
RN [2]
RP NUCLEOTIDE SEQUENCE.
TX TISSUE=whole body;
RC Klein S., Gerhard D.S.;
RA Submitted (FEB-2005) to the EMBL/GenBank/DBJ databases.
RL ENBL; BC089734; AABH9734.1; -; mRNA.
DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
DR GO; GO:0008270; F:zinc ion binding; IEA.
DR GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR GO; GO:0006025; P:peptide catabolic process; IEA.
DR InterPro; IPR000562; FN type2_col_bd.
DR InterPro; IPR000585; Hemopexin.
DR InterPro; IPR001818; Pept_M10A_M12B.
DR InterPro; IPR006025; Pept_M_Zn_BS.
DR InterPro; IPR006026; Peptidase_M.
DR InterPro; IPR002477; PGSD_1.
DR Pfam; PF00040; fn2; 3.
DR Pfam; PF00045; Hemopexin; 4.
DR Pfam; PF00413; Peptidase_M10; 1.
DR PRINTS; PR00138; FIBRONECTIN_2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC_PROTEASE; UNKNOWN 1.
SQ SEQUENCE 654 AA; 73956 MW; F9B0755F76B6F8DD CRC64;

Query Match 100.0%; Score 54; DB 2; Length 655;
Best Local Similarity 100.0%; Pred. No. 0.46;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
| | | | | | | | | |
DB 95 PRCGNPDVA 103

RESULT 8
Q8UWZ3_XENLA Q8UWZ3_XENLA PRELIMINARY; PRT; 656 AA.
AC Q8UWZ3;
DT 01-MAR-2002 (TrEMBLrel. 20, Created)
DT 01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Matrix metalloproteinase.
OS Xenopus laevis (African clawed frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidae; Pipidae;
OC Xenopodinae; Xenopus; Xenopus.
OX NCBI_TaxID=8355;
RN [1]
RP NUCLEOTIDE SEQUENCE.
TX MEDLINE=21988509; PubMed=11891989; DOI=10.1002/dvdy.10069;
RA Jung J.C., Leco K.J., Edwards D.R., Fini M.E.;
RT "Matrix metalloproteinases mediate the dismantling of mesenchymal
structures in the tadpole tail during thyroid hormone-induced tail
resorption.";
RL Dev. Dyn. 223:402-413 (2002).
RN [2]
RP NUCLEOTIDE SEQUENCE.
TX Leco K., Jung J.-C., Fini M., Edwards D.R.;
RA Submitted (JUN-2001) to the EMBL/GenBank/DBJ databases.
RL ENBL; AV037943; AAL01591.1; -; mRNA.
DR HSP; P08253; IQIB.
DR MEROPS; M10.003; -.
DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
DR GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR InterPro; IPR000562; FN Type II.
DR InterPro; IPR000585; Hemopexin.
DR InterPro; IPR006026; Peptidase_M.
DR InterPro; IPR001818; Pept_M10A_M12B.
DR InterPro; IPR006025; Pept_M_Zn_BS.
DR Pfam; PF00040; fn2; 3.
DR Pfam; PF00045; Hemopexin; 4.
DR Pfam; PF00413; Peptidase_M10; 1.
DR Pfam; PF03933; Peptidase_M10_N; 1.
DR PRINTS; PR00138; FIBRONECTIN_2; 3.
DR PRINTS; PR00138; FIBRONECTIN_2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC_PROTEASE; UNKNOWN 1.
SQ SEQUENCE 655 AA; 74345 MW; 2AFD4C93786A625C CRC64;

Query Match 100.0%; Score 54; DB 2; Length 655;
Best Local Similarity 100.0%; Pred. No. 0.46;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
| | | | | | | | | |
DB 95 PRCGNPDVA 103

RESULT 8
Q8UWZ3_XENLA Q8UWZ3_XENLA PRELIMINARY; PRT; 656 AA.
AC Q8UWZ3;
DT 01-MAR-2002 (TrEMBLrel. 20, Created)
DT 01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Matrix metalloproteinase.
OS Xenopus laevis (African clawed frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidae; Pipidae;
OC Xenopodinae; Xenopus; Xenopus.
OX NCBI_TaxID=8355;
RN [1]
RP NUCLEOTIDE SEQUENCE.
TX MEDLINE=21988509; PubMed=11891989; DOI=10.1002/dvdy.10069;
RA Jung J.C., Leco K.J., Edwards D.R., Fini M.E.;
RT "Matrix metalloproteinases mediate the dismantling of mesenchymal
structures in the tadpole tail during thyroid hormone-induced tail
resorption.";
RL Dev. Dyn. 223:402-413 (2002).
RN [2]
RP NUCLEOTIDE SEQUENCE.
TX Leco K., Jung J.-C., Fini M., Edwards D.R.;
RA Submitted (JUN-2001) to the EMBL/GenBank/DBJ databases.
RL ENBL; AV037943; AAL01591.1; -; mRNA.
DR HSP; P08253; IQIB.
DR MEROPS; M10.003; -.
DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
DR GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR InterPro; IPR000562; FN Type II.
DR InterPro; IPR000585; Hemopexin.
DR InterPro; IPR006026; Peptidase_M.
DR InterPro; IPR001818; Pept_M10A_M12B.
DR InterPro; IPR006025; Pept_M_Zn_BS.
DR Pfam; PF00040; fn2; 3.
DR Pfam; PF00045; Hemopexin; 4.
DR Pfam; PF00413; Peptidase_M10; 1.
DR Pfam; PF03933; Peptidase_M10_N; 1.
DR PRINTS; PR00138; FIBRONECTIN_2; 3.
DR PRINTS; PR00138; FIBRONECTIN_2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC_PROTEASE; UNKNOWN 1.
SQ SEQUENCE 655 AA; 74345 MW; 2AFD4C93786A625C CRC64;

DR PROSITE; PS00142; ZINC PROTEASE; UNKNOWN 1.
SQ SEQUENCE 656 AA; 74272 MW; 50C28A99C427F51D CRC64;
Query Match 100.0%; Score 54; DB 2; Length 656;
Best Local Similarity 100.0%; Pred. No. 0.46;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 PRCGNPDVA 9
|||||||
DB 96 PRCGNPDVA 104
RESULT 9
MMP2 HUMAN STANDARD; PRT; 660 AA.
AC P08253;
DT 01-AUG-1988 (Rel. 08, Created)
DT 01-FEB-1991 (Rel. 17, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE 72 kDa type IV collagenase precursor (EC 3.4.24.24) (72 kDa
DE gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A) (TBE-
DE 1).
GN Name=MMP2; Synonyms=CLG4A;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE OF 19-660, AND PARTIAL PROTEIN SEQUENCE.
RX MEDLINE=88198218; PubMed=2834383;
RA Collier I.E., Wilhelm S.M., Eisen A.Z., Marmer B.L., Grant G.A.,
RA Seltzer J.L., Kronberger A., He C., Bauer E.A., Goldberg G.I.;
RT "H-ras oncogene-transformed human bronchial epithelial cells (TBE-1)
RT secrete a single metalloprotease capable of degrading basement
RT membrane collagen.";
RL J. Biol. Chem. 263:6579-6587(1988).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=91236162; PubMed=1851724;
RA Collier I.E., Bruns G.A.P., Goldberg G.I., Gerhard D.S.;
RT "On the structure and chromosome location of the 72- and 92-kDa human
RT type IV collagenase genes.";
RL Genomics 9:429-434(1991).
RN [3]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=90293047; PubMed=2162831;
RA Huhtala P., Chow L.T., Tryggvason K.;
RT "Structure of the human type IV collagenase gene.";
RL J. Biol. Chem. 265:11077-11082(1990).
RN [4]
RP NUCLEOTIDE SEQUENCE [GENOMIC DNA], AND VARIANTS VAL-447 AND LEU-621.
RA Livingston R.J., Rieder M.J., Chung M.-W., Ritchie T.K., Olson A.N.,
RA Nguyen C.P., Nguyen D.A., Poel C.L., Chambers S.W., Schackwitz W.S.,
RA Sherwood J.K., Sherwood A.M., Leithauser B.J., Nickerson D.A.;
RT "NIHES-SNPs, environmental genome project, NIHES ES15478, Department
RT of Genome Sciences, Seattle, WA (URL: <http://seg.gs.washington.edu>).";
RL Submitted (AUG-2004) to the EMBL/GenBank/DBJ databases.
RN [5]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RC TISSUE=Brain;
RX MEDLINE=22389257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Bonaldo A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldi M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Rana S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullany S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

FAHEY J., Helton E., Kettelman M., Madan A., Rodrigues S., Sanchez A.,
Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalus D.E.,
Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [6]
RP NUCLEOTIDE SEQUENCE OF 1-51.
RX MEDLINE=90228972; PubMed=2158484;
RA Huhtala P., Eddy R.L., Fan Y.S., Byers M.G., Shows T.B.,
RA Tryggvason K.;
RT "Completion of the primary structure of the human type IV collagenase
RT preproenzyme and assignment of the gene (CLG4) to the q21 region of
RT chromosome 16.";
RL Genomics 6:554-559(1990).
RN [7]
RP ENZYME REGULATION.
RX PubMed=11179305; DOI=10.1128/IAI.69.3.1402-1408.2001;
RA Gusman H., Travis J., Helmerhorst E.J., Potempa J., Troxler R.F.,
RA Oppenheim F.G.;
RT "Salivary histatin 5 is an inhibitor of both host and bacterial
RT enzymes implicated in periodontal disease.";
RL Infect. Immun. 69:1402-1408(2001).
RN [8]
RP PROCESSING OF KISS1.
RX MEDLINE=22761370; PubMed=12879005; DOI=10.1038/sj.onc.1206542;
RA Takino T., Koshikawa N., Miyamori H., Tanaka M., Sasaki T., Okada Y.,
RA Seiki M., Sato H.;
RT "Cleavage of metastasis suppressor gene product KISS-1
RT protein/metastatin by matrix metalloproteinases.";
RL Oncogene 22:4617-4626(2003).
RN [9]
RP X-RAY CRYSTALLOGRAPHY (2.15 ANGSTROMS) OF 443-660.
RX MEDLINE=96069777; PubMed=7583664;
RA Libson A.M., Gittis A.G., Collier I.E., Marmer B.L., Goldberg G.I.,
RA Libman E.E.;
RT "Crystal structure of the haemopexin-like C-terminal domain of
RT gelatinase A.";
RL Nat. Struct. Biol. 2:938-942(1995).
RN [10]
RP X-RAY CRYSTALLOGRAPHY (2.6 ANGSTROMS) OF 458-660.
RX MEDLINE=96140723; PubMed=8549817; DOI=10.1016/0014-5793(95)01435-7;
RA Gohlke U., Gomis-Rueth F.-X., Crabbe T., Murphy G., Docherty A.J.,
RA Bode W.;
RT "The C-terminal (haemopexin-like) domain structure of human gelatinase
RT A (MMP2): structural implications for its function.";
RL FEBS Lett. 378:126-130(1996).
RN [11]
RP FUNCTION: In addition to gelatin and collagen, it cleaves KISS1
RP at a Gly-|-Leu bond.
CC CC
CC -1- CATALYTIC ACTIVITY: Cleavage of gelatin type I and collagen types
CC IV, V, VII, X. Cleaves the collagen-like sequence Pro-Gin-Gly-|-
CC Ile-Ala-Gly-Gln.
CC -1- COFACTOR: Binds 4 calcium ions per subunit.
CC -1- COFACTOR: Binds 2 zinc ions per subunit.
CC -1- ENZYME REGULATION: Inhibited by histatin-3 1/24 (histatin-5).
CC -1- SUBUNIT: Ligand for integrin alpha-v/beta-3.
CC -1- TISSUE SPECIFICITY: Produced by normal skin fibroblasts.
CC -1- PTM: The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-
CC MMP3).
CC -1- SIMILARITY: Belongs to the peptidase M10A family.
CC -1- SIMILARITY: Contains 3 fibronectin type-II domains.
CC -1- SIMILARITY: Contains 1 hemopexin-like domain.
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC EMBL; J03210; AAA35701.1; -; mRNA.


```

OC Sub.
OX NCBI_TaxID=9823;
RN [1]
RP NUCLEOTIDE SEQUENCE
RC TISSUE=Tooth enamel organ;
RX MEDLINE=21480581; PubMed=11597028;
RA Caron C., Xue J., Sun X., Simmer J.P., Bartlett J.D.;
RT "Gelatinsinase A (MMP-2) in developing tooth tissues and amelogenin
hydrolysis.";
RL J. Dent. Res. 80:1660-1664 (2001).
DR EMBL; AF295805; AAK97133.1; --; mRNA.
DR HSP; P08253; IGD.
DR MEROPS; M10.003; -.
DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
DR GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR InterPro; IPR000562; FN_Type_II.
DR InterPro; IPR000585; Hemopexin.
DR InterPro; IPR006026; Peptidase M.
DR InterPro; IPR001818; Pept M10A_M12B.
DR InterPro; IPR006025; Pept_M_Zn_BS.
DR Pfam; PF00040; fn2; 3.
DR Pfam; PF00045; Hemopexin; 4.
DR Pfam; PF00413; Peptidase M10; 1.
DR PRINTS; PR00013; FNTYPEII.
DR PRINTS; PR00138; MATRIKIN.
DR ProDom; PD000995; FN_Type_II; 3.
DR SMART; SM00059; FN2; 3.
DR SMART; SM00120; HX; 4.
DR SMART; SM00235; ZnMc; 1.
DR PROSITE; PS00546; CYSTEINE SWITCH; 1.
DR InterPro; IPR001818; Pept M10A_M12B.
DR InterPro; IPR006025; Pept_M_Zn_BS.
DR Pfam; PF00040; fn2; 3.
DR Pfam; PF00045; Hemopexin; 4.
DR Pfam; PF00413; Peptidase M10; 1.
DR PRINTS; PR00013; FNTYPEII.
DR PRINTS; PR00138; MATRIKIN.
DR ProDom; PD000995; FN_Type_II; 3.
DR SMART; SM00059; FN2; 3.
DR SMART; SM00120; HX; 4.
DR SMART; SM00235; ZnMc; 1.
DR PROSITE; PS00546; CYSTEINE SWITCH; 1.
DR PROSITE; PS00023; FIBRONECTIN 2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC_PROTEASE; UNKNOWN 1.
SQ SEQUENCE 661 AA; 73669 MW; 41CD448BD72D2CC2 CRC64;

Query Match 100.0%; Score 54; DB 2; Length 661;
Best Local Similarity 100.0%; Pred. No. 0.47;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 PRCGNPDVA 9
Db 101 PRCGNPDVA 109

RESULT 12
O9GLE5_BOVIN
ID Q9GLE5_BOVIN PRELIMINARY; PRT; 661 AA.
AC O9GLE5;
DT 01-MAR-2001 (TrEMBLrel. 16, Created)
DT 01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DE Matrix metalloprotease 2.
OS Bos taurus (Bovine).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC Pecora; Bovidae; Bovinae; Bos.
OX NCBI_TaxID=9913;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Yan L., Zhang B., Tsang P., Fang J., Yu Y., Ingber D.E., Moses M.A.;
RL Submitted (JUL-2000) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF290428; AAC28169.1; --; mRNA.
DR HSP; P08253; IGD.
DR MEROPS; M10.003; -.
DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
DR GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR InterPro; IPR000562; FN_Type_II.
DR InterPro; IPR000585; Hemopexin.
DR InterPro; IPR006026; Peptidase M.
DR InterPro; IPR001818; Pept M10A_M12B.

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DR InterPro; IPR006025; Pept_M_Zn_BS.
DR Pfam; PF00040; fn2; 3.
DR Pfam; PF00045; Hemopexin; 4.
DR Pfam; PF00413; Peptidase M10; 1.
DR PRINTS; PR00013; FNTYPEII.
DR PRINTS; PR00138; MATRIKIN.
DR ProDom; PD000995; FN_Type_II; 3.
DR SMART; SM00059; FN2; 3.
DR SMART; SM00120; HX; 4.
DR SMART; SM00235; ZnMc; 1.
DR PROSITE; PS00546; CYSTEINE SWITCH; 1.
DR PROSITE; PS00023; FIBRONECTIN 2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC_PROTEASE; UNKNOWN 1.
KW Metalloprotease; Protease.
SQ SEQUENCE 661 AA; 73776 MW; 90545F7645B5F84D CRC64;

Query Match 100.0%; Score 54; DB 2; Length 661;
Best Local Similarity 100.0%; Pred. No. 0.47;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 PRCGNPDVA 9
Db 101 PRCGNPDVA 109

RESULT 13
MMP2_MOUSE
ID MMP2_MOUSE STANDARD; PRT; 662 AA.
AC P33434;
DT 01-FEB-1994 (Rel. 28, Created)
DT 01-FEB-1994 (Rel. 28, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE 72 kDa type IV collagenase precursor (BC 3.4.24.24) (72 kDa
Gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A).
GN Name=Mmp2;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muroidae; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=92218452; PubMed=1373140;
RA Reponen P., Sahlberg C., Huhtala P., Hurstainen T., Theleff I.,
RA Tryggvason K.;
RT "Molecular cloning of murine 72-kDa type IV collagenase and its
expression during mouse development.";
RL J. Biol. Chem. 267:7856-7862 (1992).
RN [2]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RC STRAIN=C57BL/6; TISSUE=Brain;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Haieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Ustin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullaly S.J.,
RA Bosak S.A., McSwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahy J., Helton E., Kettelman M., Madan A., Rodrigues S., Sanchez A.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalios D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
and mouse cDNA sequences.";

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Proc. Natl. Acad. Sci. U.S.A. 99:16999-16903(2002).
 [3]
 DEVELOPMENTAL STAGE.
 TISSUE=Embryo;
 Pubmed=2744464;
 Brenner C.A., Adler R.R., Rappolee D.A., Pedersen R.A., Werb Z.;
 "Genes for extracellular-matrix-degrading metalloproteinases and their
 inhibitor, TIMP, are expressed during early mammalian development.";
 Genes Dev. 3:848-859(1989).
 CC -1- CATALYTIC ACTIVITY: Cleavage of gelatin type I and collagen types
 IV, V, VII, X. Cleaves the collagen-like sequence Pro-Gln-Gly-|-
 Ile-Ala-Gly-Gln.
 CC -1- COFACTOR: Binds 4 calcium ions per subunit (By similarity).
 CC -1- COFACTOR: Binds 2 zinc ions per subunit (By similarity).
 CC -1- SUBUNIT: Ligand for integrin alpha-V/beta-3.
 CC -1- DEVELOPMENTAL STAGE: Present in unfertilized eggs and at the
 zygote and cleavage stages. Levels increase at the blastocyst
 stage and with endoderm differentiation.
 CC -1- PTM: The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-
 MMP3) (By similarity).
 CC -1- SIMILARITY: Belongs to the peptidase M10A family.
 CC -1- SIMILARITY: Contains 3 fibronectin type-II domains.
 CC -1- SIMILARITY: Contains 1 hemopexin-like domain.
 CC -----
 CC This Swiss-Prot entry is copyright. It is produced through a collaboration
 between the Swiss Institute of Bioinformatics and the EMBL outstation -
 the European Bioinformatics Institute. There are no restrictions on its
 use as long as its content is in no way modified and this statement is not
 removed.
 CC -----
 DR ENBL; M84324; AAA39338.1; -; mRNA.
 DR ENBL; BC070430; AAH70430.1; -; mRNA.
 DR PIR; A42496; A42496.
 DR HSSP; P08253; IRTG.
 DR MEROPS; M10.003; -.
 DR Ensembl; ENSMUSG00000031740; Mus musculus.
 DR MGI; MGI:97009; Mmp2.
 DR GO; GO:0005615; C:extracellular space; TAS.
 DR InterPro; IPR000562; FN_type2_col_bd.
 DR InterPro; IPR000585; Hemopexin.
 DR InterPro; IPR001818; Pept_M10A_M12B.
 DR InterPro; IPR006025; Pept_M_Zn_BS.
 DR InterPro; IPR006026; Peptidase_M.
 DR Pfam; PF00040; fn2; 3.
 DR Pfam; PF00045; Hemopexin; 4.
 DR Pfam; PF00413; Peptidase_M10; 1.
 DR Pfam; PF03933; Peptidase_M10_N; 1.
 DR PRINTS; PR00013; FNTYPEII.
 DR PRINTS; PR00138; MATRILIN.
 DR ProDom; PD000995; FN_type_II; 3.
 DR SMART; SM00059; FN2; 3.
 DR SMART; SM00120; HX; 4.
 DR SMART; SM00235; ZnMc; 1.
 DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
 DR PROSITE; PS00023; FN2_1; 3.
 DR PROSITE; PS00023; FN2_2; 3.
 DR PROSITE; PS00024; HEMOPEXIN; 1.
 DR PROSITE; PS00024; ZINC_PROTEASE; 1.
 DR Calcium; Collagen degradation; Extracellular matrix; Glycoprotein;
 KW Hydrolase; Metal-binding; Metalloprotease; Protease; Repeat; Signal;
 KW Zinc; Zymogen.
 FT SIGNAL 1 29 Potential.
 FT PROPEP 30 109 Activation peptide.
 FT CHAIN 110 662 72 kDa type IV collagenase.
 FT DOMAIN 286 276 Fibronectin type-II 1.
 FT DOMAIN 228 334 Fibronectin type-II 2.
 FT DOMAIN 344 392 Fibronectin type-II 3.
 FT DOMAIN 468 662 Hemopexin-like.
 FT REGION 110 221 Collagenase-like 1.
 FT REGION 222 396 Collagen-binding.
 FT REGION 397 467 Collagenase-like 2.
 FT ACT_SITE 404 404 By similarity.
 FT METAL 134 134 Calcium 1 (By similarity).

FT METAL	168	168	Calcium 2 (By similarity).
FT METAL	178	178	Zinc 1 (By similarity).
FT METAL	180	180	Zinc 1 (By similarity).
FT METAL	185	185	Calcium 3 (By similarity).
FT METAL	186	186	Calcium 3 (via carbonyl oxygen) (By similarity).
FT METAL	193	193	Zinc 1 (By similarity).
FT METAL	200	200	Calcium 2 (via carbonyl oxygen) (By similarity).
FT METAL	202	202	Calcium 2 (via carbonyl oxygen) (By similarity).
FT METAL	204	204	Calcium 2 (By similarity).
FT METAL	206	206	Zinc 1 (By similarity).
FT METAL	208	208	Calcium 3 (By similarity).
FT METAL	209	209	Calcium 1 (By similarity).
FT METAL	211	211	Calcium 3 (By similarity).
FT METAL	403	403	Zinc 2 (catalytic) (By similarity).
FT METAL	407	407	Zinc 2 (catalytic) (By similarity).
FT METAL	413	413	Zinc 2 (catalytic) (By similarity).
FT METAL	478	478	Calcium 4 (via carbonyl oxygen) (By similarity).
FT METAL	523	523	Calcium 4 (via carbonyl oxygen) (By similarity).
FT METAL	571	571	Calcium 4 (via carbonyl oxygen) (By similarity).
FT METAL	620	620	Calcium 4 (via carbonyl oxygen) (By similarity).
FT SITE	102	102	Cysteine switch (Potential).
FT CARBOHYD	575	575	N-linked (GlcNAc. . .) (Potential).
FT CARBOHYD	644	644	N-linked (GlcNAc. . .) (Potential).
FT DISULFID	471	662	By similarity.
SQ SEQUENCE	662 AA; 74102 MW; C630A7DBDB272F02 CRC64;		

Query Match 100.0%; Score 54; DB 1; Length 662;
 Best Local Similarity 100.0%; Pred. No. 0.47;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY	1	PRCGNPDVA	9
Db	100	PRCGNPDVA	108

RESULT 14
 MMP2_RABIT STANDARD; PRT; 662 AA.
 AC P50757;
 DT 01-OCT-1996 (Rel. 34, Created)
 DT 01-OCT-1996 (Rel. 34, Last sequence update)
 DT 13-SEP-2005 (Rel. 48, Last annotation update)
 DE 72 kDa type IV collagenase precursor (EC 3.4.24.24) (72 kDa
 gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A).
 GN Name=MMP2;
 OS Oryctolagus cuniculus (Rabbit).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Lagomorpha; Leporidae;
 OC Oryctolagus.
 OX NCBI_TaxID=9986;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=Japanese white; TISSUE=Articular joint;
 RX MEDLINE=96283805; PubMed=8679695; DOI=10.1016/0167-4781(96)00050-4;
 RA Matsumoto S.; Kato M.; Watanabe T.; Masuko Y.;
 RT "Molecular cloning of rabbit matrix metalloproteinase-2 and its broad
 expression at several tissues";
 RL Biochim. Biophys. Acta 1307:137-139(1996).
 CC -1- CATALYTIC ACTIVITY: Cleavage of gelatin type I and collagen types
 IV, V, VII, X. Cleaves the collagen-like sequence Pro-Gln-Gly-|-
 Ile-Ala-Gly-Gln.
 CC -1- COFACTOR: Binds 4 calcium ions per subunit (By similarity).
 CC -1- COFACTOR: Binds 2 zinc ions per subunit (By similarity).
 CC -1- SUBUNIT: Ligand for integrin alpha-V/beta-3.
 CC -1- PTM: The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-
 MMP3) (By similarity).

CC -|- SIMILARITY: Belongs to the peptidase M10A family.
CC -|- SIMILARITY: Contains 3 fibronectin type-II domains.
CC -|- SIMILARITY: Contains 1 hemopexin-like domain.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----

DR EMBL; D63579; BAA09796.1; -; mRNA.
DR PIR; S70365; S70365.
DR HSP; P08253; IQ1B.
DR MEROPS; M10.003; -.
DR InterPro; IPR000562; FN type2_col_bd.
DR InterPro; IPR000585; Hemopexin.
DR InterPro; IPR001818; Pept_M10A_M12B.
DR InterPro; IPR006025; Pept_M_Zn_BS.
DR InterPro; IPR006026; Peptidase_M.
DR Pfam; PF00040; fn2; 3.
DR Pfam; PF00045; Hemopexin; 4.
DR Pfam; PF00413; Peptidase_M10; 1.
DR Pfam; PF03933; Peptidase_M10_N; 1.
DR PRINTS; PR00013; FNTYPEII.
DR PRINTS; PR00138; MATRIKIN.
DR ProDom; PD000995; FN Type_II; 3.
DR SMART; SM00059; FN2_3.
DR SMART; SM00120; HX; 4.
DR SMART; SM00235; ZmC; 1.
DR PROSITE; PS00546; CYSTEINE SWITCH; 1.
DR PROSITE; PS00023; FN2_1; 3.
DR PROSITE; PS51092; FN2_2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC_PROTEASE; 1.
KW Calcium; Collagen degradation; Extracellular matrix; Glycoprotein;
KW Hydrolase; Metal-binding; Metalloprotease; Protease; Repeat; Signal;
KW Zinc; Zymogen.
FT SIGNAL 1 29 Potential.
FT PROPEP 30 109 Activation peptide.
FT CHAIN 110 662 72 kDa type IV collagenase.
FT DOMAIN 228 276 Fibronectin type-II 1.
FT DOMAIN 286 334 Fibronectin type-II 2.
FT DOMAIN 344 392 Fibronectin type-II 3.
FT DOMAIN 468 662 Hemopexin-like.
FT REGION 110 221 Collagenase-like 1.
FT REGION 222 396 Collagen-binding.
FT REGION 397 467 Collagenase-like 2.
FT ACT_SITE 404 404 By similarity.
FT METAL 134 134 Calcium 1 (By similarity).
FT METAL 168 168 Calcium 2 (By similarity).
FT METAL 178 178 Zinc 1 (By similarity).
FT METAL 180 180 Zinc 1 (By similarity).
FT METAL 185 185 Calcium 3 (By similarity).
FT METAL 186 186 Calcium 3 (via carbonyl oxygen) (By similarity).
FT METAL 193 193 Zinc 1 (By similarity).
FT METAL 200 200 Calcium 2 (via carbonyl oxygen) (By similarity).
FT METAL 202 202 Calcium 2 (via carbonyl oxygen) (By similarity).
FT METAL 204 204 Calcium 2 (By similarity).
FT METAL 206 206 Zinc 1 (By similarity).
FT METAL 208 208 Calcium 3 (By similarity).
FT METAL 209 209 Calcium 3 (By similarity).
FT METAL 211 211 Zinc 2 (catalytic) (By similarity).
FT METAL 403 403 Zinc 2 (catalytic) (By similarity).
FT METAL 407 407 Zinc 2 (catalytic) (By similarity).
FT METAL 413 413 Calcium 4 (via carbonyl oxygen) (By similarity).
FT METAL 478 478 Calcium 4 (via carbonyl oxygen) (By similarity).
FT METAL 523 523 Calcium 4 (via carbonyl oxygen) (By similarity).
FT METAL 571 571 Calcium 4 (via carbonyl oxygen) (By similarity).

FT METAL 620 620 similarity).
FT Calcium 4 (via carbonyl oxygen) (By similarity).
FT Cysteine switch (Potential).
FT CARBOHYD 575 575 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 644 644 N-linked (GlcNAc...) (Potential).
FT DISULFID 471 662 By similarity.
SQ SEQUENCE 662 AA; 73803 MW; 1CC246B270B440C8 CRC64;
Query Match 100.0%; Score 54; DB 1; Length 662;
Best Local Similarity 100.0%; Pred. No. 0.47;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 PRCGNPDVA 9
DB 100 PRCGNPDVA 108
RESULT 15
MMP2 RAT ID MMP2 RAT STANDARD; PRT; 662 AA.
AC P33436; P97581;
DT 01-FEB-1994 (Rel. 28, Created)
DT 01-FEB-1994 (Rel. 28, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE 72 kDa type IV collagenase precursor (EC 3.4.24.24) (72 kDa
DE gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A).
GN Name:Mmp2;
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muroidae; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP MEDLINE=93249363; PubMed=7916617;
RX Marti H.P., McNeil L., Davies M., Martin J., Lovett D.H.;
RA "Homology cloning of rat 72 kDa type IV collagenase: cytokine and
RT second-messenger-inducibility in glomerular mesangial cells.";
RL Biochem. J. 291:441-446(1993).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RX STRAIN=Wistar; TISSUE=Skin;
RA Okada A., Basset P.;
RT "The cloning of the cDNA encoding rat gelatinase A from a rat skin
RT wound cDNA library.";
RL Submitted (JUL-1996) to the EMBL/GenBank/DBJ databases.
CC -|- CATALYTIC ACTIVITY: Cleavage of gelatin type I and collagen types
CC IV, V, VII, X. Cleaves the collagen-like sequence Pro-Gln-Gly-|-
CC Ile-Ala-Gly-Gln.
CC -|- COFACTOR: Binds 4 calcium ions per subunit (By similarity).
CC -|- COFACTOR: Binds 2 zinc ions per subunit (By similarity).
CC -|- SUBUNIT: Ligand for integrin alpha-v/beta-3.
CC -|- PTM: The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-
CC MMP3) (By similarity).
CC -|- SIMILARITY: Belongs to the peptidase M10A family.
CC -|- SIMILARITY: Contains 3 fibronectin type-II domains.
CC -|- SIMILARITY: Contains 1 hemopexin-like domain.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC EMBL; X71466; CAA50583.1; -; mRNA.
DR EMBL; U65656; AAB41692.1; -; mRNA.
DR PIR; S34780; S34780.
DR HSP; P08253; INTG.
DR MEROPS; M10.003; -.
DR RGD; 621316; Mmp2.
DR GO; GO:0004228; F:gelatinase A activity; IDA.
DR GO; GO:0008237; F:metallopeptidase activity; TAS.

DR PROSITE; PSS1092; FN2_2; 3.
 DR PROSITE; PS00024; HEMOPEXIN; 1.
 DR PROSITE; PS00142; ZINC_PROTEASE; 1.
 KW Calcium; Hydrolase; Metal-binding; Metalloprotease; Protease; Zinc.
 SQ SEQUENCE 662 AA; 74149 MW; C56BD787473FC03E CRC64;

Query Match 100.0%; Score 54; DB 2; Length 662;
 Best Local Similarity 100.0%; Pred. No. 0.47;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
 |||||
 Db 100 PRCGNPDVA 108

RESULT 17
 MMP2_CHICK STANDARD; PRT; 663 AA.

AC Q90611;
 DT 01-NOV-1997 (Rel. 35, Created)
 DT 01-NOV-1997 (Rel. 35, Last sequence update)
 DT 13-SEP-2005 (Rel. 48, Last annotation update)
 DE 72 kDa type IV collagenase precursor (EC 3.4.24.24) (72 kDa
 Gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A).
 GN Name=MMP2;
 OS Gallus gallus (Chicken).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
 OC Gallus.
 OK NCBI_TaxID=9031;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC TISSUE=Embryo;
 RX MEDLINE=94280397; PubMed=8010954;
 RA Aimes R.T., French D.L., Quigley J.P.;
 RT "Cloning of a 72 kDa matrix metalloproteinase (gelatinase) from
 chicken embryo fibroblasts using gene family PCR: expression of the
 gelatinase increases upon malignant transformation.";
 RL Biochem. J. 300:729-736(1994).
 RN [2]
 RP PROTEIN SEQUENCE OF 27-41 AND 107-122.
 RX MEDLINE=91161603; PubMed=1848240;
 RA Chen J.-M., Aimes R.T., Ward G.R., Youngleib G.L., Quigley J.P.;
 RT "Isolation and characterization of a 70-kDa metalloprotease
 (gelatinase) that is elevated in Rous sarcoma virus-transformed
 chicken embryo fibroblasts.";
 RL J. Biol. Chem. 266:5113-5121(1991).
 CC -1- CATALYTIC ACTIVITY: Cleavage of gelatin type I and collagen types
 IV, V, VII, X. Cleaves the collagen-like sequence Pro-Gln-Gly-|-
 Ile-Ala-Gly-Gln.
 CC -1- COPACTOR: Binds 4 calcium ions per subunit (By similarity).
 CC -1- COPACTOR: Binds 2 zinc ions per subunit (By similarity).
 CC -1- SUBUNIT: Ligand for integrin alpha-V/beta-3.
 CC -1- TISSUE SPECIFICITY: Produced by normal skin fibroblasts.
 CC -1- PTM: The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-
 MMP3) (By similarity).
 CC -1- SIMILARITY: Belongs to the peptidase M10A family.
 CC -1- SIMILARITY: Contains 3 fibronectin type-II domains.
 CC -1- SIMILARITY: Contains 1 hemopexin-like domain.
 CC -----
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 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
 CC the European Bioinformatics Institute. There are no restrictions on its
 CC use as long as its content is in no way modified and this statement is not
 CC removed.
 CC -----
 CC EMBL; U07775; AAA19596.1; -; mRNA.
 DR PIR; S46492; S46492.
 DR HSP; P08253; 1QIB.
 DR MEKOPS; M10.003; -.
 DR Ensembl; ENSGALG00000003580; Gallus gallus.
 DR InterPro; IPR000562; FN type2_col_bd.
 DR InterPro; IPR000585; Hemopexin.

DR InterPro; IPR001818; Pept M10A_M12B.
 DR InterPro; IPR006025; Pept_M_Zn_BS.
 DR InterPro; IPR006026; Peptidase_M.
 DR Pfam; PF00040; fn2; 3.
 DR Pfam; PF00045; Hemopexin; 4.
 DR Pfam; PF00413; Peptidase_M10; 1.
 DR Pfam; PF03933; Peptidase_M10_N; 1.
 DR PRINTS; PR00013; FNTYPEII.
 DR PRINTS; PR00138; MATRXIN.
 DR ProDom; PD000995; FN_Type_II; 3.
 DR SMART; SM00059; FN2; 3.
 DR SMART; SM00120; HX; 4.
 DR SMART; SM00235; ZnMc; 1.
 DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
 DR PROSITE; PS00023; FN2_1; 3.
 DR PROSITE; PSS1092; FN2_2; 3.
 DR PROSITE; PS00024; HEMOPEXIN; 1.
 DR PROSITE; PS00142; ZINC_PROTEASE; 1.
 KW Calcium; Collagen degradation; Direct protein sequencing;
 KW Extracellular matrix; Hydrolase; Metal-binding; Metalloprotease;
 KW Protease; Repeat; Signal; Zinc; Zymogen.
 FT SIGNAL 1 26 Activation peptide.
 FT PROPEP 27 106 72 kDa type IV collagenase.
 FT CHAIN 107 663 Fibronectin type-II 1.
 FT DOMAIN 225 273 Fibronectin type-II 2.
 FT DOMAIN 283 331 Fibronectin type-II 3.
 FT DOMAIN 341 389 Hemopexin-like.
 FT DOMAIN 469 663 Collagenase-like 1.
 FT REGION 107 218 Collagen-binding.
 FT REGION 219 393 Collagenase-like 2.
 FT REGION 394 468 By similarity.
 FT ACT_SITE 401 401 Calcium 1 (By similarity).
 FT METAL 131 131 Calcium 2 (By similarity).
 FT METAL 165 165 Zinc 1 (By similarity).
 FT METAL 175 175 Zinc 1 (By similarity).
 FT METAL 177 177 Calcium 3 (By similarity).
 FT METAL 182 182 Calcium 3 (via carbonyl oxygen) (By
 similarity).
 FT METAL 183 183 Zinc 1 (By similarity).
 FT METAL 190 190 Calcium 2 (via carbonyl oxygen) (By
 similarity).
 FT METAL 197 197 Calcium 2 (By similarity).
 FT METAL 199 199 Zinc 1 (By similarity).
 FT METAL 201 201 Calcium 3 (By similarity).
 FT METAL 203 203 Calcium 1 (By similarity).
 FT METAL 206 206 Calcium 3 (By similarity).
 FT METAL 208 208 Zinc 2 (catalytic) (By similarity).
 FT METAL 400 400 Zinc 2 (catalytic) (By similarity).
 FT METAL 404 404 Zinc 2 (catalytic) (By similarity).
 FT METAL 410 410 Zinc 2 (catalytic) (By similarity).
 FT METAL 479 479 Calcium 4 (via carbonyl oxygen) (By
 similarity).
 FT METAL 524 524 Calcium 4 (via carbonyl oxygen) (By
 similarity).
 FT METAL 572 572 Calcium 4 (via carbonyl oxygen) (By
 similarity).
 FT METAL 621 621 Calcium 4 (via carbonyl oxygen) (By
 similarity).
 FT SITE 99 99 Cysteine switch (Potential).
 FT DISULFID 472 663 By similarity.
 FT CONFLICT 40 40 P -> Q (in Ref. 2).
 FT CONFLICT 116 116 W -> T (in Ref. 2).
 FT CONFLICT 122 122 T -> I (in Ref. 2).
 SQ SEQUENCE 663 AA; 74941 MW; 8D6FDA4E67C3EBCA CRC64;

Query Match 100.0%; Score 54; DB 1; Length 663;
 Best Local Similarity 100.0%; Pred. No. 0.47;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
 |||||

Db 97 PRGNPDVA 105

Search completed: February 21, 2006, 18:42:03
Job time : 90.2368 secs

GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: February 21, 2006, 17:57:40 ; Search time 90.9474 Seconds
(without alignments)
43.480 Million cell updates/sec

Title: US-10-601-059-12

Perfect score: 54

Sequence: 1 PRGCPDVA 9

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 70

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 100%

Maximum Match 100%

Listing first 500 summaries

Database :

A_Geneseq_21.*

1: Geneseq1980s.*

2: Geneseq1990s.*

3: Geneseq2000s.*

4: Geneseq2001s.*

5: Geneseq2002s.*

6: Geneseq2003as.*

7: Geneseq2003bs.*

8: Geneseq2004s.*

9: Geneseq2005s.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	54	100.0	9	6	Abp97134 Human mat
2	54	100.0	9	6	Abg76320 Human mat
3	54	100.0	9	8	Adq17095 Human mat
4	54	100.0	9	9	Adv68476 Human mat
5	54	100.0	11	8	Adj37569 MMP-2 pro
6	54	100.0	14	2	Aay07331 Matrix me
7	54	100.0	14	4	Aau09136 Matrix me
8	54	100.0	14	6	Abg76327 Human MMP
9	54	100.0	14	7	Adm48669 Human mat
10	54	100.0	14	8	Adq17102 Human mat
11	54	100.0	17	6	Abg76328 Human MMP
12	54	100.0	17	8	Adq17103 Human mat
13	54	100.0	19	6	Abp97133 Human mat
14	54	100.0	19	6	Abg76319 Human mat
15	54	100.0	19	8	Adq17094 Human mat
16	54	100.0	19	9	Adv68475 Human mat
17	54	100.0	23	2	Aay07359 Matrix me
18	54	100.0	43	6	Abp97137 Human mat
19	54	100.0	43	6	Abg76323 Human mat
20	54	100.0	43	8	Adq17098 Human mat
21	54	100.0	43	9	Adv68479 Human mat
22	54	100.0	44	6	Abp97124 Human mat
23	54	100.0	44	6	Abg76310 Human mat
24	54	100.0	44	8	Adq17085 Human mat

25	54	100.0	44	9	Adv68466 Human mat
26	54	100.0	75	4	Aam30829 Peptide #
27	54	100.0	75	4	Abb22666 Protein #
28	54	100.0	75	5	Abg40146 Human pep
29	54	100.0	80	2	Aay07349 Fragment
30	54	100.0	80	5	Aag78385 Rat/mouse
31	54	100.0	85	2	Aay07338 Fragment
32	54	100.0	92	5	Aag78386 Recombina
33	54	100.0	194	9	Aea20074 Novel hum
34	54	100.0	445	7	Adf59546 Human pol
35	54	100.0	462	9	Aea90447 Human lun
36	54	100.0	468	4	Abg24001 Novel hum
37	54	100.0	623	8	Abm84057 Human dia
38	54	100.0	631	1	Aap96143 Sequence
39	54	100.0	631	1	Aap91139 Human typ
40	54	100.0	631	2	Aar07969 Complete
41	54	100.0	631	2	Aay07350 Human typ
42	54	100.0	631	2	Aaw41226 Human mat
43	54	100.0	631	7	Adm48668 Human mat
44	54	100.0	631	8	Adt05996 Human mat
45	54	100.0	633	8	Adt05997 Mouse mat
46	54	100.0	644	4	Aab20490 Human mat
47	54	100.0	660	2	Aar06420 Type IV c
48	54	100.0	660	4	Aab84607 Amino aci
49	54	100.0	660	4	Aae10431 Human mat
50	54	100.0	660	5	Abb79413 Human mat
51	54	100.0	660	5	Abb90738 Human Tum
52	54	100.0	660	5	Aau84348 Protein M
53	54	100.0	660	6	Abu54445 Human tum
54	54	100.0	660	6	Abp97136 Human mat
55	54	100.0	660	6	Aao16608 Human mat
56	54	100.0	660	6	Abg76322 Human mat
57	54	100.0	660	7	Adt18578 Human dis
58	54	100.0	660	7	Adp65244 Human mat
59	54	100.0	660	8	Adn07697 Human mat
60	54	100.0	660	8	Adq17097 Human mat
61	54	100.0	660	9	Adv90301 Protease-
62	54	100.0	660	9	Adv68478 Human mat
63	54	100.0	662	7	Adc62857 Rat Prote
64	54	100.0	662	7	Ada46270 Rat Prote
65	54	100.0	663	2	Aaw41111 Chicken m
66	54	100.0	663	8	Adt05976 Chicken m
67	54	100.0	663	8	Adt05995 Chicken m
68	54	100.0	708	7	Adf60554 Human con
69	54	100.0	708	9	Aea20970 Novel hum
70	54	100.0	1330	4	Abg23999 Novel hum

ALIGNMENTS

RESULT 1
ABP97134
ID ABP97134 standard; peptide; 9 AA.

XX AC ABP97134;

XX DT 24-JUN-2003 (first entry)

XX Human matrix metalloproteinase 2 cleavage region peptide SEQ ID NO:12.

XX Human; matrix metalloproteinase; MMP; anticancer; wound healing;
XX matrix metalloproteinase inhibitor; antitumor; antiangiogenic; cardiant;
XX vascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic;
XX vulnary; cerebroprotective; antidiabetic; ophthalmological; tumour;
XX dermatological; metastatic; non-metastatic; vascularised; heart disease;
XX non-vascularised; surgical incision; chronic wound; stroke; angiogenesis;
XX macular degeneration; diabetic retinopathy; cleavage region.

OS Homo sapiens.

PN WO2003018748-A2.

XX

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PD 06-MAR-2003.
XX
PF 15-AUG-2002; 2002WO-US026319.
XX
XX 16-AUG-2001; 2001US-0312726P.
PR 21-DEC-2001; 2001US-00032376.
PR 21-MAY-2002; 2002US-00153185.
XX
XX (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
XX
XX Quirk S, Weart IF;
XX
XX WPI; 2003-381408/36.
XX
XX Anti-angiogenic composition comprising peptide inhibitor of matrix
PT metalloproteinase, useful for decreasing the expression of vascular
PT endothelial growth factor and treating cancers and tissue injuries.
XX
XX Claim 17; Page 45; 103pp; English.
XX
XX The present invention describes an anti-angiogenic composition (I) for
CC inhibiting expression of vascular endothelial growth factor (VEGF). (I)
CC comprises an effective amount of a peptide inhibitor of matrix
CC metalloproteinase (MMP), where the peptide can inhibit the expression of
CC VEGF. (I) has cytostatic, vulnary, cardiant, cerebroprotective,
CC antidiabetic, ophthalmological and dermatological activities. (I) can be
CC used for inhibiting expression of VEGF, and so can be used for inhibiting
CC growth of tumours and diminishing tumours size. The tumour can be
CC metastatic, non-metastatic, vascularised, non-vascularised, hard or soft.
CC (I) is also useful for treating injuries including wounds, surgical
CC incisions, chronic wounds, heart diseases and stroke. (I) is also useful
CC for treating disorders characterised by excessive angiogenesis e.g.
CC macular degeneration and diabetic retinopathy. The present sequence
CC represents a human MMP cleavage region peptide, which is used in the
CC exemplification of the present invention
XX
XX Sequence 9 AA;
SQ
Query Match 100.0%; Score 54; DB 6; Length 9;
Best Local Similarity 100.0%; Pred. No. 2e+06;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 PRCGNPDVA 9
Db 1 PRCGNPDVA 9
|||||
RESULT 3
ADQ17095
ID ADQ17095 standard; peptide; 9 AA.
XX
XX ADQ17095;
AC
XX 23-SEP-2004 (first entry)
DT
XX Human matrix metalloproteinase-2 (MMP2) cleavage region peptide #3.
DE
XX Fibronectin; healthy skin; wrinkle; wound; vulnary; dermatological;
KW human; matrix metalloproteinase; MMP.
XX
XX Homo sapiens.
OS
XX US2004127421-A1.
PN
XX 01-JUL-2004.
PD
XX 30-DEC-2002; 2002US-00335207.
PF
XX 30-DEC-2002; 2002US-00335207.
PR
XX (MALI/) MALIK S.
XX (QUIR/) QUIRK S.
PA
XX Malik S, Quirk S;
PI
XX WPI; 2004-506456/48.
XX
XX Composition used for preventing and treating wrinkles and treating wounds
DR comprises peptide having sequence related to matrix metalloproteinase
PT proenzyme.
PT
XX Example 1; SEQ ID NO 12; 60pp; English.
PS
XX The present invention provides peptides and compositions containing such
XX peptides that are useful as agents to maintain healthy skin and to
CC promote the condition of the skin. The invention is useful for increasing
CC

```

CC the amount of fibronectin in tissue. The invention is also useful for
 CC encouraging the maintenance and development of healthy skin, preventing
 CC and treating wrinkles and for treating wounds. The invention acts as
 CC a vulnerary and dermatological agents. The present sequence is human matrix
 CC metalloproteinase (MMP) cleavage region peptide. This sequence is used in
 CC the exemplification of the invention.

XX SQ Sequence 9 AA;
 Query Match 100.0%; Score 54; DB 8; Length 9;
 Best Local Similarity 100.0%; Pred. No. 2e+06;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
 Db 1 PRCGNPDVA 9

RESULT 4
 ADV68476
 ID ADV68476 standard; peptide; 9 AA.

XX AC ADV68476;

XX DT 10-MAR-2005 (first entry)

XX DE Human matrix metalloproteinase-2 cleavage region polypeptide SeqID12.

XX KW cell growth; pharmaceutical; cytostatic; metalloproteinase 1 inhibitor;
 KW metalloproteinase 2 inhibitor; metalloproteinase 3 inhibitor;
 KW metalloproteinase 4 inhibitor; metalloproteinase 5 inhibitor;
 KW metalloproteinase 6 inhibitor; metalloproteinase 7 inhibitor;
 KW metalloproteinase 8 inhibitor; metalloproteinase 9 inhibitor;
 KW metalloproteinase 10 inhibitor; metalloproteinase 11 inhibitor;
 KW metalloproteinase 12 inhibitor; metalloproteinase 13 inhibitor;
 KW metalloproteinase inhibitor; bone tumor; sarcoma.

XX OS Homo sapiens.

XX PN US2004259802-A1.

XX PD 23-DEC-2004.

XX PF 20-JUN-2003; 2003US-00601059.

XX PR 20-JUN-2003; 2003US-00601059.

XX PA (YANG/) YANG S.

XX PA (QUIR/) QUIRK S.

XX PI Yang S, Quirk S;

XX DR WPI; 2005-047374/05.

XX PT A composition for decreasing and inhibiting the growth of chondrosarcoma
 cells, useful for treating chondrosarcomas and bone cancer, comprises a
 matrix metalloproteinase inhibitor.

XX PS Claim 16; SEQ ID NO 12; 50pp; English.

XX CC This invention relates to a novel composition for inhibiting growth of
 CC chondrosarcoma cells comprising an amount of a peptide and a
 CC pharmaceutical carrier. The invention may be useful for the production of
 CC compounds with a cytostatic activity acting as metalloproteinase 1
 CC inhibitors, metalloproteinase 2 inhibitors, metalloproteinase 3 inhibitors,
 CC metalloproteinase 4 inhibitors, metalloproteinase 5 inhibitors,
 CC metalloproteinase 6 inhibitors, metalloproteinase 7 inhibitors,
 CC metalloproteinase 8 inhibitors, metalloproteinase 9 inhibitors,
 CC metalloproteinase 10 inhibitors, metalloproteinase 11 inhibitors,
 CC metalloproteinase 12 inhibitors, metalloproteinase 13 inhibitors or
 CC metalloproteinase inhibitors. The composition is useful for decreasing and
 CC inhibiting the growth of chondrosarcoma cells which in turn inhibits
 CC growth of a bone tumor or diminishes a size of a bone tumor, useful for

CC treating chondrosarcomas and bone cancers. The present sequence is that
 CC of a peptide derived from a human matrix metalloproteinase which may be
 CC used during the development of a composition of the invention.

XX SQ Sequence 9 AA;

Query Match 100.0%; Score 54; DB 9; Length 9;
 Best Local Similarity 100.0%; Pred. No. 2e+06;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
 Db 1 PRCGNPDVA 9

RESULT 5
 ADJ37569
 ID ADJ37569 standard; peptide; 11 AA.

XX AC ADJ37569;

XX DT 22-APR-2004 (first entry)

XX DE MMP-2 prodomain peptide for use in wound healing.

XX KW Matrix metalloproteinase; MMP prodomain peptide; reepithelialisation;
 KW provisional matrix formation; angiogenesis; wound healing; burn;
 KW diabetes; vulnerary; matrix metalloproteinase-2; MMP-2.

XX OS Unidentified.

XX FH Key Location/Qualifiers

XX FT Modified-site 1 /note= "N-terminal acetyl"

XX FT Modified-site 11 /note= "C-terminal amide"

XX FT WO2004006864-A2.

XX PD 22-JAN-2004.

XX PF 16-JUL-2003; 2003WO-US022453.

XX PR 17-JUL-2002; 2002US-0396366P.

XX PR 15-JUL-2003; 2003US-00619809.

XX PA (UNMI) UNIV MICHIGAN.

XX PI Livant DL;

XX DR WPI; 2004-143032/14.

XX PT Use of matrix metalloproteinase prodomain peptides for the treatment of
 wound e.g. chronic wound in the patients with diabetes or burns.

XX PS Claim 10; Page 25; 35pp; English.

XX CC The invention relates to a method for the treatment of a wound comprising
 CC the administration of a matrix metalloproteinase (MMP) prodomain peptide
 CC (). The invention also encompasses a kit containing the MMP prodomain
 CC peptide and instructions for its use. The MMP prodomain peptides promote
 CC reepithelialisation, provisional matrix formation and angiogenesis, and
 CC may be derived from MMP-1, MMP-7, MMP-2 or MMP-9. They may be used for
 CC treating wounds, particularly chronic wounds in burns patients or those
 CC with diabetes. The present sequence represents a specifically claimed MMP
 CC -2 prodomain peptide of the invention.

XX SQ Sequence 11 AA;

Query Match 100.0%; Score 54; DB 8; Length 11;
 Best Local Similarity 100.0%; Pred. No. 0.039;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

QY      1  PRCGNPDVA 9
Db      1  PRCGNPDVA 9

RESULT 6
AAY07331
ID  AAY07331 standard; peptide; 14 AA.
XX
AC  AAY07331;
XX
DT  25-MAR-2003 (revised)
DT  16-JUL-1999 (first entry)
XX
DE  Matrix metalloprotease inhibitor peptide #2.
XX
KW  Matrix metalloprotease; inhibitor; tissue damage; angiogenesis; antibody;
KW  arthritis; tumour growth; granulomatous inflammatory condition; enzyme;
KW  metastasis; sarcoidosis.
XX
OS  Synthetic.
XX
PN  WO9010228-A.
XX
PD  07-SEP-1990.
XX
PF  01-MAR-1989; 89US-00317407.
XX
PR  01-MAR-1989; 89US-00317407.
PR  26-FEB-1990; 90US-00488460.
XX
PA  (USDC ) US SEC OF COMMERCE.
PA  (USSH ) NAT INST OF HEALTH.
XX
PI  Liotta LA, Stetlerste W, Krutzsch H;
XX
DR  WPI; 1990-290458/38.
XX
PT  Matrix metalloprotease peptide(s) - used to inhibit enzyme in treating
PT  tissue damage caused by activated enzyme.
XX
PS  Claim 3; Page 41; 61pp; English.
XX
CC  This peptide represents a matrix metalloprotease (MMP) inhibitor peptide
CC  of the formula: aa1-aa2-aa3-aa4-C where aa1 and aa2 is R or K; aa3 is K,
CC  Q or N; aa4 is P, A, G, L, I or V; and C is a cysteine having a free
CC  sulphydryl group. The peptides can be used to treat tissue damage caused
CC  by activated MMPs, e.g. for treating inappropriate angiogenesis,
CC  arthritis, tumour growth, invasion and metastasis and granulomatous
CC  inflammatory conditions such as sarcoidosis. Antibodies to the peptides
CC  can be used to detect the MMPs and can distinguish activated from latent
CC  enzyme. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-
CC  2003 to correct PA field.) (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ  Sequence 14 AA;

Query Match      100.0%; Score 54; DB 2; Length 14;
Best Local Similarity 100.0%; Pred. No. 0.05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  PRCGNPDVA 9
Db      5  PRCGNPDVA 13

RESULT 7
AAU09136
ID  AAU09136 standard; peptide; 14 AA.
XX
AC  AAU09136;
XX
DT  19-DEC-2001 (first entry)
XX

Matrix metalloproteinase (MMP) inhibitory peptide #4.
Matrix metalloproteinase; MMP; proenzyme; ophthalmological;
retinal neovascularisation; macular degeneration; diabetic retinopathy;
retinopathy of prematurity; ROP; retinitis pigmentosa; RP;
macular oedema; glaucoma; posterior uveitis; endophthalmitis;
ocular insult; arthritis; rosacea.
Synthetic.
WO200168053-A2.
20-SEP-2001.
07-MAR-2001; 2001WO-US007171.
10-MAR-2000; 2000US-00523102.
28-AUG-2000; 2000US-00648446.
(INSI-) INSITE VISION INC.
Si EC, Bowman LM, Rowe-Rendleman C, Roy S;
WPI; 2001-616269/71.
Treating and preventing ophthalmological disorders e.g. retinal
neovascularization comprises administering composition comprising
therapeutic agent e.g. hydroxamic acid, and optionally polymeric
suspension agent.
Claim 21; Page 17; 52pp; English.
The invention describes a novel method of treating and preventing
ophthalmological disorders comprising topically administering to the eye
a composition delivering a therapeutic agent to the posterior segment of
the eye. The composition optionally includes a polymeric suspension
agent. The test is used for treating ophthalmic disorders, preferably
posterior segment ophthalmic disorders, particularly retinal
neovascularisation, macular oedema, ocular insult, ocular manifestation
of systemic disease e.g. viral infection, arthritis and rosacea and
atrophic disorders of the posterior segment; macular degeneration,
diabetic retinopathy, retinopathy of prematurity (ROP), glaucoma,
retinitis pigmentosa (RP), posterior uveitis and endophthalmitis. The
composition may be self administered without using anaesthetics to
deliver therapeutically effective amounts of active agent. This peptide
sequence is a Matrix metalloproteinase (MMP) inhibitory peptide #4, a
therapeutic peptide based on the conserved region of MMP pro-collagenase,
(see AAU09130), described in the method of the invention
Sequence 14 AA;

Query Match      100.0%; Score 54; DB 4; Length 14;
Best Local Similarity 100.0%; Pred. No. 0.05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  PRCGNPDVA 9
Db      5  PRCGNPDVA 13

RESULT 8
ABG76327
ID  ABG76327 standard; peptide; 14 AA.
XX
AC  ABG76327;
XX
DT  10-MAY-2003 (first entry)
XX
DE  Human MMP-2 peptide #1 tested in NHDF migration assay.
XX
KW  Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2;
KW  cleavage region; proenzyme form; cellular proliferation; fibroblast;
KW  keratinocyte; healthy skin development; wound healing; scarring;

```

KW skin tone; wrinkle; anti-aging; vulnerary;
 KW normal human dermal fibroblast migration assay; NHDF.
 XX Homo sapiens.
 OS
 XX WO2003016520-A1.
 PN
 XX 27-FEB-2003.
 PD
 XX 15-AUG-2002; 2002WO-US026198.
 PF
 XX 16-AUG-2001; 2001US-0312726P.
 PR 21-DEC-2001; 2001US-00032376.
 PR 21-MAY-2002; 2002US-00153185.
 XX
 XX (KIMB) KIMBERLY-CLARK WORLDWIDE INC.
 PA
 XX Quirk S, Malik S, Villanueva JM;
 PI WPI; 2003-289980/28.
 XX
 XX Novel peptide inhibitor of proteinase activity of matrix
 PT metalloproteinases, e.g. matrix metalloproteinase-2, useful for
 PT stimulating cellular proliferation of fibroblasts or keratinocytes.
 XX
 XX Example 5; Page 54; 120pp; English.
 PS
 XX The present invention relates to peptide inhibitors of metalloproteinases
 CC (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have
 CC peptide sequences related to the cleavage regions of the proenzyme forms
 CC of the MMPs. The peptide inhibitors are useful for stimulating cellular
 CC proliferation of fibroblasts or keratinocytes, promoting healthy skin
 CC development, treating wounds, preventing scarring, improving skin tone,
 CC reducing wrinkling and for stimulating the development of smooth, healthy
 CC skin. The peptide inhibitors are useful as anti-aging and wound healing
 CC compounds. The present sequence represents a peptide tested in a normal
 CC human dermal fibroblast (NHDF) migration assay in the examples of the
 CC present invention
 XX
 XX Sequence 14 AA;
 SQ
 Query Match 100.0%; Score 54; DB 6; Length 14;
 Best Local Similarity 100.0%; Pred. No. 0.05;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Qy 1 PRCGNPDVA 9
 Db |||||
 5 PRCGNPDVA 13
 RESULT 9
 ADM48669
 ID ADM48669 standard; peptide; 14 AA.
 XX
 XX ADM48669;
 AC
 XX 03-JUN-2004 (first entry)
 DT
 XX Human matrix metalloproteinase-2 (MMP-2) peptide #8.
 DE
 XX Cancer; metastasis; matrix metalloproteinase-2; MMP-2; vaccine;
 KW immune response; gene therapy; cytostatic; enzyme; human.
 KW
 XX Homo sapiens.
 OS
 XX US2003139345-A1.
 PN
 XX 24-JUL-2003.
 PD
 XX 23-JAN-2003; 2003US-00350258.
 PF
 XX 23-JAN-2002; 2002US-0351317P.
 PR
 XX

(NETK/) NETKE S.
 (NIED/) NIEDZWIECKI A.
 (RATH/) RATH M.
 PA
 PA Netke S, Niedzwiecki A, Rath M;
 XX WPI; 2003-897356/82.
 PI
 XX
 XX New synthetic oligopeptide, useful for blocking or treating cancer
 PT invasion and metastases in a human patient, particularly as a vaccine for
 PT treating or preventing diagnosing brain cancer, lung cancer, skin cancer
 PT or breast cancer.
 XX
 XX Example 1; Fig 2; 11pp; English.
 PS
 XX The present invention relates to novel synthetic oligopeptides effective
 CC in blocking cancer invasion and metastasis. The invention relates to
 CC matrix metalloproteinase-2 (MMP-2) peptides. The synthetic oligopeptides
 CC are useful as pharmaceutical compositions for blocking or treating cancer
 CC invasion and metastases in a human patient. In particular, they are
 CC useful for treating brain cancer, lung cancer, skin cancer or breast
 CC cancer. The oligopeptides are also useful as vaccines for preventing
 CC these cancers, enhancing immune response or raising antibodies for assays
 CC used to diagnose diseases involving matrix metalloproteinases or clinical
 CC monitoring of the progression or regression of disease. They are also
 CC useful in gene therapy. The present sequence is a human MMP-2 peptide.
 XX
 XX Sequence 14 AA;
 SQ
 Query Match 100.0%; Score 54; DB 7; Length 14;
 Best Local Similarity 100.0%; Pred. No. 0.05;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Qy 1 PRCGNPDVA 9
 Db |||||
 5 PRCGNPDVA 13
 RESULT 10
 ADQ17102
 ID ADQ17102 standard; peptide; 14 AA.
 XX
 XX ADQ17102;
 AC
 XX 23-SEP-2004 (first entry)
 DT
 XX Human matrix metalloproteinase-2 (MMP2) 14-mer peptide.
 DE
 XX Fibronection; healthy skin; wrinkle; wound; vulnery; dermatological;
 KW human; matrix metalloproteinase; MMP.
 KW
 XX Homo sapiens.
 OS
 XX US2004127421-A1.
 PN
 XX 01-JUL-2004.
 PD
 XX 30-DEC-2002; 2002US-00335207.
 PF
 XX 30-DEC-2002; 2002US-00335207.
 PR
 XX (MALI/) MALIK S.
 PA (QUIR/) QUIRK S.
 XX
 XX Malik S, Quirk S;
 PI WPI; 2004-506456/48.
 DR
 XX Composition used for preventing and treating wrinkles and treating wounds
 PT comprises peptide having sequence related to matrix metalloproteinase
 PT proenzyme.
 XX
 XX Example 1; SEQ ID NO 19; 60pp; English.
 PS

XX CC The present invention provides peptides and compositions containing such
 CC peptides that are useful as agents to maintain healthy skin and to
 CC promote the condition of the skin. The invention is useful for increasing
 CC the amount of fibronectin in tissue. The invention is also useful for
 CC encouraging the maintenance and development of healthy skin, preventing
 CC and treating wrinkles and for treating wounds. The invention acts as
 CC vulnerary and dermatological agents. The present sequence is human matrix
 CC metalloproteinase (MMP) peptide. This sequence is used in the
 CC exemplification of the invention.
 XX SQ Sequence 14 AA;
 Query Match 100.0%; Score 54; DB 8; Length 14;
 Best Local Similarity 100.0%; Pred. No. 0.05;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRCGNPDVA 9
 Db |||||
 5 PRCGNPDVA 13
 RESULT 11
 ID ABG76328 standard; peptide; 17 AA.
 XX AC ABG76328;
 XX DT 10-MAY-2003 (first entry)
 XX DE Human MMP-2 peptide #2 tested in NHDF migration assay.
 XX KW Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2;
 KW cleavage region; proenzyme form; cellular proliferation; fibroblast;
 KW keratinocyte; healthy skin development; wound healing; scarring;
 KW skin tone; wrinkle; anti-aging; vulnerary;
 KW normal human dermal fibroblast migration assay; NHDF.
 XX OS Homo sapiens.
 XX WO2003016520-A1.
 XX DT 27-FEB-2003.
 XX PF 15-AUG-2002; 2002WO-US026198.
 XX PR 16-AUG-2001; 2001US-0312726P.
 XX PR 21-DEC-2001; 2001US-00032376.
 XX PR 21-MAY-2002; 2002US-00153185.
 XX PA (KIMB) KIMBERLY-CLARK WORLDWIDE INC.
 XX PI Quirk S, Malik S, Villanueva JM;
 XX WPI; 2003-289980/28.
 XX FT Novel peptide inhibitor of proteinase activity of matrix
 FT metalloproteinases, e.g. matrix metalloproteinase-2, useful for
 FT stimulating cellular proliferation of fibroblasts or keratinocytes.
 XX Example 5; Page 54; 120pp; English.
 XX CC The present invention relates to peptide inhibitors of metalloproteinases
 CC (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have
 CC peptide sequences related to the cleavage regions of the proenzyme forms
 CC of the MMPs. The peptide inhibitors are useful for stimulating cellular
 CC proliferation of fibroblasts or keratinocytes, promoting healthy skin
 CC development, treating wounds, preventing scarring, improving skin tone,
 CC reducing wrinkling and for simulating the development of smooth, healthy
 CC skin. The peptide inhibitors are useful as anti-aging and wound healing
 CC compounds. The present sequence represents a peptide tested in a normal
 CC human dermal fibroblast (NHDF) migration assay in the examples of the
 CC present invention

XX SQ Sequence 17 AA;
 Query Match 100.0%; Score 54; DB 6; Length 17;
 Best Local Similarity 100.0%; Pred. No. 0.061;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRCGNPDVA 9
 Db |||||
 8 PRCGNPDVA 16
 RESULT 12
 ID ADQ17103 standard; peptide; 17 AA.
 XX AC ADQ17103;
 XX DT 23-SEP-2004 (first entry)
 XX DE Human matrix metalloproteinase-9 (MMP9) 17-mer peptide.
 XX KW Fibronectin; healthy skin; wrinkle; wound; vulnerary; dermatological;
 KW human; matrix metalloproteinase; MMP.
 XX OS Homo sapiens.
 XX US2004127421-A1.
 XX PD 01-JUL-2004.
 XX PF 30-DEC-2002; 2002US-00335207.
 XX PR 30-DEC-2002; 2002US-00335207.
 XX PA (MALI/) MALIK S.
 XX PA (QUIR/) QUIRK S.
 XX PI Malik S, Quirk S;
 XX WPI; 2004-506456/48.
 XX PT Composition used for preventing and treating wrinkles and treating wounds
 PT comprises peptide having sequence related to matrix metalloproteinase
 PT proenzyme.
 XX Example 1; SEQ ID NO 20; 60pp; English.
 XX CC The present invention provides peptides and compositions containing such
 CC peptides that are useful as agents to maintain healthy skin and to
 CC promote the condition of the skin. The invention is useful for increasing
 CC the amount of fibronectin in tissue. The invention is also useful for
 CC encouraging the maintenance and development of healthy skin, preventing
 CC and treating wrinkles and for treating wounds. The invention acts as
 CC vulnerary and dermatological agents. The present sequence is human matrix
 CC metalloproteinase (MMP) peptide. This sequence is used in the
 CC exemplification of the invention.
 XX SQ Sequence 17 AA;
 Query Match 100.0%; Score 54; DB 8; Length 17;
 Best Local Similarity 100.0%; Pred. No. 0.061;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRCGNPDVA 9
 Db |||||
 8 PRCGNPDVA 16
 RESULT 13
 ID ABP97133 standard; peptide; 19 AA.
 XX

```

AC ABP97133;
XX
DT 24-JUN-2003 (first entry)
XX
DE Human matrix metalloproteinase 2 cleavage region peptide SEQ ID NO:11.
XX
KW Human; matrix metalloproteinase; MMP; anticancer; wound healing;
KW matrix metalloproteinase inhibitor; antitumor; antiangiogenic; cardiant;
KW vascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic;
KW vulnary; cerebroprotective; antidiabetic; ophthalmological; tumour;
KW dermatological; metastatic; non-metastatic; vascularised; heart disease;
KW non-vascularised; surgical incision; chronic wound; stroke; angiogenesis;
KW macular degeneration; diabetic retinopathy; cleavage region.
XX
OS Homo sapiens.
XX
XX W02003018748-A2.
XX
XX 06-MAR-2003.
XX
XX 15-AUG-2002; 2002WO-US026319.
XX
XX 16-AUG-2001; 2001US-0312726P.
XX
XX 21-DEC-2001; 2001US-00032376.
XX
XX 21-MAY-2002; 2002US-00153185.
XX
XX (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
XX
XX Quirk S, Weart IF;
XX
XX WPI; 2003-381408/36.
XX
XX Anti-angiogenic composition comprising peptide inhibitor of matrix
XX metalloproteinase, useful for decreasing the expression of vascular
XX endothelial growth factor and treating cancers and tissue injuries.
XX
XX Claim 17; Page 45; 103pp; English.
XX
XX The present invention describes an anti-angiogenic composition (I) for
XX inhibiting expression of vascular endothelial growth factor (VEGF). (I)
XX comprises an effective amount of a peptide inhibitor of matrix
XX metalloproteinase (MMP), where the peptide can inhibit the expression of
XX VEGF. (I) has cytostatic, vulnary, cardiant, cerebroprotective,
XX antidiabetic, ophthalmological and dermatological activities. (I) can be
XX used for inhibiting expression of VEGF, and so can be used for inhibiting
XX growth of tumours and diminishing tumours size. The tumour can be
XX metastatic, non-metastatic, vascularised, non-vascularised, hard or soft.
XX (I) is also useful for treating injuries including wounds, surgical
XX incisions, chronic wounds, heart diseases and stroke. (I) is also useful
XX for treating disorders characterised by excessive angiogenesis e.g.
XX macular degeneration and diabetic retinopathy. The present sequence
XX represents a human MMP cleavage region peptide, which is used in the
XX exemplification of the present invention
XX
SQ Sequence 19 AA;
Query Match 100.0%; Score 54; DB 6; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.068;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
| | | | |
Db 1 PRCGNPDVA 9

RESULT 14
ABG76319
ID ABG76319 standard; peptide; 19 AA.
XX
AC ABG76319;
XX
XX 10-MAY-2003 (first entry)
XX
XX
DE Human matrix metalloproteinase (MMP) peptide inhibitor #11.
XX
XX Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2;
XX cleavage region; proenzyme form; cellular proliferation; fibroblast;
XX keratinocyte; healthy skin development; wound healing; scarring;
XX skin tone; wrinkle; anti-aging; vulnary.
XX
XX Homo sapiens.
XX
XX W02003016520-A1.
XX
XX 27-FEB-2003.
XX
XX 15-AUG-2002; 2002WO-US026198.
XX
XX 16-AUG-2001; 2001US-0312726P.
XX
XX 21-DEC-2001; 2001US-00032376.
XX
XX 21-MAY-2002; 2002US-00153185.
XX
XX (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
XX
XX Quirk S, Malik S, Villanueva JM;
XX
XX WPI; 2003-289980/28.
XX
XX Novel peptide inhibitor of proteinase activity of matrix
XX metalloproteinases, e.g. matrix metalloproteinase-2, useful for
XX stimulating cellular proliferation of fibroblasts or keratinocytes.
XX
XX Claim 1; Page 44; 120pp; English.
XX
XX The present invention relates to peptide inhibitors of metalloproteinases
XX (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have
XX peptide sequences related to the cleavage regions of the proenzyme forms
XX of the MMPs. The peptide inhibitors are useful for stimulating cellular
XX proliferation of fibroblasts or keratinocytes, promoting healthy skin
XX development, treating wounds, preventing scarring, improving skin tone,
XX reducing wrinkling and for simulating the development of smooth, healthy
XX skin. The peptide inhibitors are useful as anti-aging and wound healing
XX compounds. ABG76303-ABG76321 represent peptide inhibitors of MMPs
XX
SQ Sequence 19 AA;
Query Match 100.0%; Score 54; DB 6; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.068;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
| | | | |
Db 1 PRCGNPDVA 9

RESULT 15
ADQ17094
ID ADQ17094 standard; peptide; 19 AA.
XX
XX ADQ17094;
XX
XX 23-SEP-2004 (first entry)
XX
XX Human matrix metalloproteinase-2 (MMP2) cleavage region peptide #2.
XX
XX Fibronectin; healthy skin; wrinkle; wound; vulnary; dermatological;
XX human; matrix metalloproteinase; MMP.
XX
XX Homo sapiens.
XX
XX US2004127421-A1.
XX
XX 01-JUL-2004.
XX
XX 30-DEC-2002; 2002US-00335207.
XX
XX

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PR 30-DEC-2002; 2002US-00335207.
XX
PA (MALI/) MALIK S.
PA (QUIR/) QUIRK S.
XX
PI Malik S, Quirk S;
XX
DR WPI; 2004-506456/48.
XX
PT Composition used for preventing and treating wrinkles and treating wounds
PT comprises peptide having sequence related to matrix metalloproteinase
PT proenzyme.
XX
PS Claim 11; SEQ ID NO 11; 60pp; English.
XX
CC The present invention provides peptides and compositions containing such
CC peptides that are useful as agents to maintain healthy skin and to
CC promote the condition of the skin. The invention is useful for increasing
CC the amount of fibronectin in tissue. The invention is also useful for
CC encouraging the maintenance and development of healthy skin, preventing
CC and treating wrinkles and for treating wounds. The invention acts as
CC vulnerary and dermatological agents. The present sequence is human matrix
CC metalloproteinase (MMP) cleavage region peptide. This sequence is used in
CC the exemplification of the invention.
XX
SQ Sequence 19 AA;

Query Match 100.0%; Score 54; DB 8; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.068;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
DB 1 PRCGNPDVA 9

RESULT 16
ADV68475
ID ADV68475 standard; peptide; 19 AA.
XX
AC ADV68475;
XX
DT 10-MAR-2005 (first entry)
XX
DE Human matrix metalloproteinase-2 cleavage region polypeptide SeqID11.
XX
KW cell growth; pharmaceutical; cytostatic; metalloproteinase 1 inhibitor;
KW metalloproteinase 2 inhibitor; metalloproteinase 3 inhibitor;
KW metalloproteinase 4 inhibitor; metalloproteinase 5 inhibitor;
KW metalloproteinase 6 inhibitor; metalloproteinase 7 inhibitor;
KW metalloproteinase 8 inhibitor; metalloproteinase 9 inhibitor;
KW metalloproteinase 10 inhibitor; metalloproteinase 11 inhibitor;
KW metalloproteinase 12 inhibitor; metalloproteinase 13 inhibitor;
KW metalloproteinase inhibitor; bone tumor; sarcoma.
XX
OS Homo sapiens.
XX
PN US2004259802-A1.
XX
PD 23-DEC-2004.
XX
PF 20-JUN-2003; 2003US-00601059.
XX
PR 20-JUN-2003; 2003US-00601059.
XX
PA (YANG/) YANG S.
PA (QUIR/) QUIRK S.
XX
PI Yang S, Quirk S;
XX
DR WPI; 2005-047374/05.
XX
PT A composition for decreasing and inhibiting the growth of chondrosarcoma

cells, useful for treating chondrosarcomas and bone cancer, comprises a
matrix metalloproteinase inhibitor.
Claim 16; SEQ ID NO 11; 50pp; English.
This invention relates to a novel composition for inhibiting growth of
chondrosarcoma cells comprising an amount of a peptide and a
pharmaceutical carrier. The invention may be useful for the production of
compounds with a cytostatic activity acting as metalloproteinase 1
inhibitors, metalloproteinase 2 inhibitors, metalloproteinase 3 inhibitors,
metalloproteinase 4 inhibitors, metalloproteinase 5 inhibitors,
metalloproteinase 6 inhibitors, metalloproteinase 7 inhibitors,
metalloproteinase 8 inhibitors, metalloproteinase 9 inhibitors,
metalloproteinase 10 inhibitors, metalloproteinase 11 inhibitors or
metalloproteinase 12 inhibitors. The composition is useful for decreasing and
inhibiting the growth of chondrosarcoma cells which in turn inhibits
growth of a bone tumor or diminishes a size of a bone tumor, useful for
treating chondrosarcomas and bone cancers. The present sequence is that
of a peptide derived from a human matrix metalloproteinase which may be
used during the development of a composition of the invention.
SQ Sequence 19 AA;

Query Match 100.0%; Score 54; DB 9; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.068;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
DB 1 PRCGNPDVA 9

RESULT 17
AAV07359
ID AAV07359 standard; peptide; 23 AA.
XX
AC AAV07359;
XX
DT 25-MAR-2003 (revised)
DT 16-JUL-1999 (first entry)
XX
DE Matrix metalloproteinase inhibitor peptide #23.
XX
KW Matrix metalloproteinase; inhibitor; tissue damage; angiogenesis; antibody;
KW arthritis; tumour growth; granulomatous inflammatory condition; enzyme;
KW metastasis; sarcoidosis.
XX
OS Synthetic.
XX
PN WO9010228-A.
XX
PD 07-SEP-1990.
XX
PF 01-MAR-1989; 89US-00317407.
XX
PR 01-MAR-1989; 89US-00317407.
PR 26-FEB-1990; 90US-00488460.
XX
PA (USDC ) US SEC OF COMMERCE.
PA (USSH ) NAT INST OF HEALTH.
XX
PI Liotta LA, Stetlerste W, Krutzsh H;
XX
DR WPI; 1990-290458/38.
XX
PT Matrix metalloproteinase peptide(s) - used to inhibit enzyme in treating
PT tissue damage caused by activated enzyme.
XX
EX Example 1; Page 15; 61pp; English.
XX
CC This peptide represents a matrix metalloproteinase (MMP) inhibitor peptide
CC of the invention. The peptides can be used to treat tissue damage caused

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CC by activated MMPs, e.g. for treating inappropriate angiogenesis,
 CC arthritis, tumour growth, invasion and metastasis and granulomatous
 CC inflammatory conditions such as sarcoidosis. Antibodies to the peptides
 CC can be used to detect the MMPs and can distinguish activated from latent
 CC enzyme. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PI field.)
 CC 2003 to correct PA field.) (Updated on 25-MAR-2003 to correct PI field.)
 XX
 SQ Sequence 23 AA;

Query Match 100.0%; Score 54; DB 2; Length 23;
 Best Local Similarity 100.0%; Pred. No. 0.083;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
 Db 5 PRCGNPDVA 13
 |||||

RESULT 18
 ABP97137
 ID ABP97137 standard; peptide; 43 AA.

XX
 AC ABP97137;

XX DT 24-JUN-2003 (first entry)

XX DE Human matrix metalloproteinase 2 peptide SEQ ID NO:15.

XX Human; matrix metalloproteinase; MMP; anticancer; wound healing;
 KW matrix metalloproteinase inhibitor; antitumour; antiangiogenic; cardiant;
 KW vascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic;
 KW vulnary; cerebroprotective; antidiabetic; ophthalmological; tumour;
 KW dermatological; metastatic; non-metastatic; vascularised; heart disease;
 KW non-vascularised; surgical incision; chronic wound; stroke; angiogenesis;
 KW macular degeneration; diabetic retinopathy; cleavage region.

XX OS Homo sapiens.

XX PN WO2003018748-A2.

XX PD 06-MAR-2003.

XX PF 15-AUG-2002; 2002WO-US026319.

XX PR 16-AUG-2001; 2001US-0312726P.

XX PR 21-DEC-2001; 2001US-00032376.

XX PR 21-MAY-2002; 2002US-00153185.

XX PA (KIMB) KIMBERLY-CLARK WORLDWIDE INC.

XX PI Quirk S, Weart IF;

XX PF WPI; 2003-381408/36.

XX Anti-angiogenic composition comprising peptide inhibitor of matrix
 PT metalloproteinase, useful for decreasing the expression of vascular
 PT endothelial growth factor and treating cancers and tissue injuries.

XX Disclosure; Page 26; 103pp; English.

XX The present invention describes an anti-angiogenic composition (I) for
 CC inhibiting expression of vascular endothelial growth factor (VEGF). (I)
 CC comprises an effective amount of a peptide inhibitor of matrix
 CC metalloproteinase (MMP), where the peptide can inhibit the expression of
 CC VEGF. (I) has cytostatic, vulnary, cardiant, cerebroprotective,
 CC antidiabetic, ophthalmological and dermatological activities. (I) can be
 CC used for inhibiting expression of VEGF, and so can be used for inhibiting
 CC growth of tumours and diminishing tumours size. The tumour can be
 CC metastatic, non-metastatic, vascularised, non-vascularised, hard or soft.
 CC (I) is also useful for treating injuries including wounds, surgical
 CC incisions, chronic wounds, heart diseases and stroke. (I) is also useful
 CC for treating disorders characterised by excessive angiogenesis e.g.
 CC macular degeneration and diabetic retinopathy. The present sequence

CC represents a human MMP peptide, which is used in the exemplification of
 CC the present invention
 XX
 SQ Sequence 43 AA;

Query Match 100.0%; Score 54; DB 6; Length 43;
 Best Local Similarity 100.0%; Pred. No. 0.16;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
 Db 24 PRCGNPDVA 32
 |||||

RESULT 19

ABG76323

ID ABG76323 standard; protein; 43 AA.

XX AC ABG76323;

XX DT 10-MAY-2003 (first entry)

XX DE Partial sequence from human matrix metalloproteinase-2 (MMP-2).

XX Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2;
 KW cleavage region; proenzyme form; cellular proliferation; fibroblast;
 KW keratinocyte; healthy skin development; wound healing; scarring;
 KW skin tone; wrinkle; anti-aging; vulnerary.

XX OS Homo sapiens.

XX PN WO2003016520-A1.

XX PD 27-FEB-2003.

XX PF 15-AUG-2002; 2002WO-US026198.

XX PR 16-AUG-2001; 2001US-0312726P.

XX PR 21-DEC-2001; 2001US-00032376.

XX PR 21-MAY-2002; 2002US-00153185.

XX PA (KIMB) KIMBERLY-CLARK WORLDWIDE INC.

XX PI Quirk S, Malik S, Villanueva JM;

XX DR WPI; 2003-289980/28.

XX Novel peptide inhibitor of proteinase activity of matrix
 PT metalloproteinases, e.g. matrix metalloproteinase-2, useful for
 PT stimulating cellular proliferation of fibroblasts or keratinocytes.

XX Claim 1; Page 27; 120pp; English.

XX The present invention relates to peptide inhibitors of metalloproteinases
 CC (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have
 CC peptide sequences related to the cleavage regions of the proenzyme forms
 CC of the MMPs. The peptide inhibitors are useful for stimulating cellular
 CC proliferation of fibroblasts or keratinocytes, promoting healthy skin
 CC development, treating wounds, preventing scarring, improving skin tone,
 CC reducing wrinkling and for stimulating the development of smooth, healthy
 CC skin. The peptide inhibitors are useful as anti-aging and wound healing
 CC compounds. The present sequence represents a partial sequence of human
 CC MMP-2

XX SQ Sequence 43 AA;

Query Match 100.0%; Score 54; DB 6; Length 43;
 Best Local Similarity 100.0%; Pred. No. 0.16;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
 Db 24 PRCGNPDVA 32
 |||||

RESULT 20
ADQ17098
ID ADQ17098 standard; peptide; 43 AA.

XX AC ADQ17098;

XX DT 23-SEP-2004 (first entry)

XX DE Human matrix metalloproteinase-2 (MMP2) wound site peptide.

XX KW Fibronectin; healthy skin; wrinkle; wound; vulnery; dermatological;

XX KW human; matrix metalloproteinase; MMP.

XX OS Homo sapiens.

XX PN US2004127421-A1.

XX PD 01-JUL-2004.

XX PF 30-DEC-2002; 2002US-00335207.

XX PR 30-DEC-2002; 2002US-00335207.

XX PA (MALI/) MALIK S.

XX PA (QUIR/) QUIRK S.

XX PI Malik S, Quirk S;

XX DR WPI; 2004-506456/48.

XX PT Composition used for preventing and treating wrinkles and treating wounds
XX PT comprises peptide having sequence related to matrix metalloproteinase
XX PT proenzyme.

XX PS Disclosure; SEQ ID NO 15; 60pp; English.

XX CC The present invention provides peptides and compositions containing such
XX CC peptides that are useful as agents to maintain healthy skin and to
XX CC promote the condition of the skin. The invention is useful for increasing
XX CC the amount of fibronectin in tissue. The invention is also useful for
XX CC encouraging the maintenance and development of healthy skin, preventing
XX CC and treating wrinkles and for treating wounds. The invention acts as
XX CC vulnery and dermatological agents. The present sequence is human matrix
XX CC metalloproteinase (MMP) wound site peptide. This sequence is used in the
XX CC exemplification of the invention.

XX SQ Sequence 43 AA;

Query Match 100.0%; Score 54; DB 8; Length 43;
Best Local Similarity 100.0%; Pred. No. 0.16;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
| | | | | | | |
DB 24 PRCGNPDVA 32

RESULT 21

ADV68479

ID ADV68479 standard; protein; 43 AA.

XX AC ADV68479;

XX DT 10-MAR-2005 (first entry)

XX DE Human matrix metalloproteinase-2 polypeptide SeqID15.

XX CC cell growth; pharmaceutical; cytostatic; metalloproteinase 1 inhibitor;

XX KW metalloproteinase 2 inhibitor; metalloproteinase 3 inhibitor;

XX KW metalloproteinase 4 inhibitor; metalloproteinase 5 inhibitor;

XX KW metalloproteinase 6 inhibitor; metalloproteinase 7 inhibitor;

KW metalloproteinase 8 inhibitor; metalloproteinase 9 inhibitor;
KW metalloproteinase 10 inhibitor; metalloproteinase 11 inhibitor;
KW metalloproteinase 12 inhibitor; metalloproteinase 13 inhibitor;
KW metalloproteinase inhibitor; bone tumor; sarcoma.

OS Homo sapiens.

XX PN US2004259802-A1.

XX PD 23-DEC-2004.

XX PF 20-JUN-2003; 2003US-00601059.

XX PR 20-JUN-2003; 2003US-00601059.

XX PA (YANG/) YANG S.

XX PA (QUIR/) QUIRK S.

XX PI Yang S, Quirk S;

XX DR WPI; 2005-047374/05.

XX PS A composition for decreasing and inhibiting the growth of chondrosarcoma
XX PT cells, useful for treating chondrosarcomas and bone cancer, comprises a
XX PT matrix metalloproteinase inhibitor.

XX SQ Disclosure; SEQ ID NO 15; 50pp; English.

XX CC This invention relates to a novel composition for inhibiting growth of
XX CC chondrosarcoma cells comprising an amount of a peptide and a
XX CC pharmaceutical carrier. The invention may be useful for the production of
XX CC compounds with a cytostatic activity acting as metalloproteinase 1
XX CC inhibitors, metalloproteinase 2 inhibitors, metalloproteinase 3 inhibitors,
XX CC metalloproteinase 4 inhibitors, metalloproteinase 5 inhibitors,
XX CC metalloproteinase 6 inhibitors, metalloproteinase 7 inhibitors,
XX CC metalloproteinase 8 inhibitors, metalloproteinase 9 inhibitors,
XX CC metalloproteinase 10 inhibitors, metalloproteinase 11 inhibitors,
XX CC metalloproteinase 12 inhibitors, metalloproteinase 13 inhibitors or
XX CC metalloproteinase inhibitors. The composition is useful for decreasing and
XX CC inhibiting the growth of chondrosarcoma cells which in turn inhibits
XX CC growth of a bone tumor or diminishes a size of a bone tumor, useful for
XX CC treating chondrosarcomas and bone cancers. The present sequence is that
XX CC of a peptide derived from a human matrix metalloproteinase which may be
XX CC used during the development of a composition of the invention.

XX SQ Sequence 43 AA;

Query Match 100.0%; Score 54; DB 9; Length 43;
Best Local Similarity 100.0%; Pred. No. 0.16;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
| | | | | | | |
DB 24 PRCGNPDVA 32

RESULT 22

ABP97124

ID ABP97124 standard; peptide; 44 AA.

XX AC ABP97124;

XX DT 24-JUN-2003 (first entry)

XX DE Human matrix metalloproteinase 2 cleavage region peptide SEQ ID NO:2.

XX KW Human; matrix metalloproteinase; WMP; anticancer; wound healing;

XX KW matrix metalloproteinase inhibitor; antitumor; angiogenic; cardiant;

XX KW vascular endothelial growth factor inhibitor; VEGF inhibitor; cycostatic;

XX KW vulnery; cerebroprotective; antidiabetic; ophthalmological; tumour;

XX KW dermatological; metastatic; non-metastatic; vascularised; heart disease;

XX KW non-vascularised; surgical incision; chronic wound; stroke; angiogenesis;

XX KW macular degeneration; diabetic retinopathy; cleavage region.

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XX OS Homo sapiens.
XX PN W02003018748-A2.
XX PD 06-MAR-2003.
XX PF 15-AUG-2002; 2002WO-US026319.
XX PR 16-AUG-2001; 2001US-0312726P.
XX PR 21-DEC-2001; 2001US-00032376.
XX PR 21-MAY-2002; 2002US-00153185.
XX PA (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
XX PI Quirk S, Weart IF;
XX DR WPI; 2003-381408/36.
XX XX
XX XX Anti-angiogenic composition comprising peptide inhibitor of matrix
XX PT metalloproteinase, useful for decreasing the expression of vascular
XX PT endothelial growth factor and treating cancers and tissue injuries.
XX XX
XX XX Claim 17; Page 15; 103pp; English.
XX XX
XX XX The present invention describes an anti-angiogenic composition (I) for
XX CC inhibiting expression of vascular endothelial growth factor (VEGF). (I)
XX CC comprises an effective amount of a peptide inhibitor of matrix
XX CC metalloproteinase (MMP), where the peptide can inhibit the expression of
XX CC VEGF. (I) has cytostatic, vulnerary, cardiant, cerebroprotective,
XX CC antidiabetic, ophthalmological and dermatological activities. (I) can be
XX CC used for inhibiting expression of VEGF, and so can be used for inhibiting
XX CC growth of tumours and diminishing tumours size. The tumour can be
XX CC metastatic, non-metastatic, vascularised, non-vascularised, hard or soft.
XX CC (I) is also useful for treating injuries including wounds, surgical
XX CC incisions, chronic wounds, heart diseases and stroke. (I) is also useful
XX CC for treating disorders characterised by excessive angiogenesis e.g.
XX CC macular degeneration and diabetic retinopathy. The present sequence
XX CC represents a human MMP cleavage region peptide, which is used in the
XX CC exemplification of the present invention
XX XX
XX SQ Sequence 44 AA;
    Query Match 100.0%; Score 54; DB 6; Length 44;
    Best Local Similarity 100.0%; Pred. No. 0.16;
    Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
Db 24 PRCGNPDVA 32
    |||||
    |||||

RESULT 23
ABG76310
ID ABG76310 standard; protein; 44 AA.
XX AC ABG76310;
XX DT 10-MAY-2003 (first entry)
XX DE Human matrix metalloproteinase (MMP) peptide inhibitor #2.
XX KW Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2;
XX KW cleavage region; proenzyme form; cellular proliferation; fibroblast;
XX KW keratinocyte; healthy skin development; wound healing; scarring;
XX KW skin tone; wrinkle; anti-aging; vulnerary.
XX OS Homo sapiens.
XX PN W02003016520-A1.
XX PD 27-FEB-2003.
XX XX

    Query Match 100.0%; Score 54; DB 6; Length 44;
    Best Local Similarity 100.0%; Pred. No. 0.16;
    Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
Db 24 PRCGNPDVA 32
    |||||
    |||||

RESULT 24
ADQ17085
ID ADQ17085 standard; peptide; 44 AA.
XX AC ADQ17085;
XX DT 23-SEP-2004 (first entry)
XX DE Human matrix metalloproteinase-2 (MMP2) cleavage region peptide #1.
XX KW Fibronectin; healthy skin; wrinkle; wound; vulnerary; dermatological;
XX KW human; matrix metalloproteinase; MMP.
XX OS Homo sapiens.
XX PN US2004127421-A1.
XX PD 01-JUL-2004.
XX PF 30-DEC-2002; 2002US-00335207.
XX PR 30-DEC-2002; 2002US-00335207.
XX XX
XX XX (MALI/) MALIK S.
XX PA (QUIR/) QUIRK S.
XX PI Malik S, Quirk S;
XX XX
XX DR WPI; 2004-506456/48.
XX XX
XX PT Composition used for preventing and treating wrinkles and treating wounds
XX PT comprises peptide having sequence related to matrix metalloproteinase
XX PT proenzyme.

```

PS Example 1; SEQ ID NO 2; 60pp; English.

XX The present invention provides peptides and compositions containing such

CC peptides that are useful as agents to maintain healthy skin and to

CC promote the condition of the skin. The invention is useful for increasing

CC the amount of fibronectin in tissue. The invention is also useful for

CC encouraging the maintenance and development of healthy skin, preventing

CC and treating wrinkles and for treating wounds. The invention acts as

CC vulnary and dermatological agents. The present sequence is human matrix

CC metalloproteinase (MMP) cleavage region peptide. This sequence is used in

CC the exemplification of the invention.

XX

SQ Sequence 44 AA;

Query Match 100.0%; Score 54; DB 8; Length 44;

Best Local Similarity 100.0%; Pred. No. 0.16;

Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9

Db |||||

24 PRCGNPDVA 32

RESULT 25

ADV68466

ID ADV68466 standard; protein; 44 AA.

AC

XX ADV68466;

AC

XX 10-MAR-2005 (first entry)

DT

XX

DE Human matrix metalloproteinase-2 cleavage region polypeptide SeqID2.

XX

XX cell growth; pharmaceutical; cytostatic; metalloproteinase 1 inhibitor;

KW metalloproteinase 2 inhibitor; metalloproteinase 3 inhibitor;

KW metalloproteinase 4 inhibitor; metalloproteinase 5 inhibitor;

KW metalloproteinase 6 inhibitor; metalloproteinase 7 inhibitor;

KW metalloproteinase 8 inhibitor; metalloproteinase 9 inhibitor;

KW metalloproteinase 10 inhibitor; metalloproteinase 11 inhibitor;

KW metalloproteinase 12 inhibitor; metalloproteinase 13 inhibitor;

KW metalloproteinase inhibitor; bone tumor; sarcoma.

XX

OS Homo sapiens.

XX

XX US2004259802-A1.

PN

XX 23-DEC-2004.

PD

XX

XX 20-JUN-2003; 2003US-00601059.

PF

XX

XX 20-JUN-2003; 2003US-00601059.

PR

XX (YANG/) YANG S.

PA

PA (QUIR/) QUIRK S.

XX

XX Yang S, Quirk S;

PI

XX WPI; 2005-047374/05.

DR

XX

XX A composition for decreasing and inhibiting the growth of chondrosarcoma

PT cells, useful for treating chondrosarcomas and bone cancer, comprises a

PT matrix metalloproteinase inhibitor.

XX

XX Claim 16; SEQ ID NO 2; 50pp; English.

PS

XX This invention relates to a novel composition for inhibiting growth of

CC chondrosarcoma cells comprising an amount of a peptide and a

CC pharmaceutical carrier. The invention may be useful for the production of

CC compounds with a cytostatic activity acting as metalloproteinase 1

CC inhibitors, metalloproteinase 2 inhibitors, metalloproteinase 3 inhibitors,

CC metalloproteinase 4 inhibitors, metalloproteinase 5 inhibitors,

CC metalloproteinase 6 inhibitors, metalloproteinase 7 inhibitors,

CC metalloproteinase 8 inhibitors, metalloproteinase 9 inhibitors,

CC

CC metalloproteinase 10 inhibitors, metalloproteinase 11 inhibitors,

CC metalloproteinase 12 inhibitors, metalloproteinase 13 inhibitors or

CC metalloproteinase inhibitors. The composition is useful for decreasing and

CC inhibiting the growth of chondrosarcoma cells which in turn inhibits

CC growth of a bone tumor or diminishes a size of a bone tumor, useful for

CC treating chondrosarcomas and bone cancers. The present sequence is that

CC of a peptide derived from a human matrix metalloproteinase which may be

XX used during the development of a composition of the invention.

SQ Sequence 44 AA;

Query Match 100.0%; Score 54; DB 9; Length 44;

Best Local Similarity 100.0%; Pred. No. 0.16;

Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9

Db |||||

24 PRCGNPDVA 32

RESULT 26

AAM30829

ID AAM30829 standard; protein; 75 AA.

XX

AC AAM30829;

XX

DT 17-OCT-2001 (first entry)

XX

DE Peptide #4866 encoded by probe for measuring placental gene expression.

DE

XX Probe; microarray; human; placenta; antenatal diagnosis;

KW genetic disorder.

KW

XX Homo sapiens.

OS

XX WO200157272-A2.

PN

XX 09-AUG-2001.

PD

XX 30-JAN-2001; 2001WO-US0000663.

PF

XX 04-FEB-2000; 2000US-0180312P.

PR

XX 26-MAY-2000; 2000US-0207456P.

PR

XX 30-JUN-2000; 2000US-00608408.

PR

XX 03-AUG-2000; 2000US-00632366.

PR

XX 21-SEP-2000; 2000US-0234687P.

PR

XX 27-SEP-2000; 2000US-0236359P.

PR

XX 04-OCT-2000; 2000GB-00024263.

XX

XX (MOLE-) MOLECULAR DYNAMICS INC.

PA

XX Penn SG, Hanzel DK, Chen W, Rank DR;

PI

XX WPI; 2001-48897/53.

XX

XX Human genome-derived single exon nucleic acid probes useful for analyzing

PT gene expression in human placenta.

PT

XX Claim 27; SEQ ID NO 31098; 654pp; English.

PS

XX The present invention relates to single exon nucleic acid probes (SENP:

CC see AAI31315-AAI57546). The present sequence is a peptide encoded by one

CC such probe. The probes are useful for producing a microarray for

CC predicting, measuring and displaying gene expression in samples derived

CC from human placenta. The probes are useful for antenatal diagnosis of

CC human genetic disorders

XX

SQ Sequence 75 AA;

Query Match 100.0%; Score 54; DB 4; Length 75;

Best Local Similarity 100.0%; Pred. No. 0.27;

Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
 Db 49 PRCGNPDVA 57

RESULT 27
 ABB22666
 ID ABB22666 standard; protein; 75 AA.
 AC ABB22666;
 XX 23-JAN-2002 (first entry)
 DT Protein #4665 encoded by probe for measuring heart cell gene expression.
 DE Human; gene expression; heart; microarray; vascular system;
 KW cardiovascular disease; hypertension; cardiac arrhythmia;
 KW congenital heart disease.
 XX Homo sapiens.
 OS
 XX
 PN W0200157274-A2.
 XX 09-AUG-2001.
 PD
 XX 30-JAN-2001; 2001WO-US000666.
 XX 04-FEB-2000; 2000US-0180312P.
 PR 26-MAY-2000; 2000US-0207456P.
 PR 30-JUN-2000; 2000US-00608408.
 PR 03-AUG-2000; 2000US-00632366.
 PR 21-SEP-2000; 2000US-0234687P.
 PR 27-SEP-2000; 2000US-0236359P.
 PR 04-OCT-2000; 2000GB-00024263.
 XX (MOLE-) MOLECULAR DYNAMICS INC.
 PA Penn SG, Hanzel DK, Chen W, Rank DR;
 XX WPI; 2001-488899/53.
 DR Single exon nucleic acid probes for analyzing gene expression in human
 PT hearts.
 PT
 XX Claim 15; SEQ ID NO 24436; 530pp; English.
 XX The present invention relates to single exon nucleic acid probes for
 CC measuring human gene expression in a sample derived from human heart (see
 CC ABA21535-ABA41305). The present sequence is a protein encoded by one such
 CC probe. The probes may be used for predicting, measuring and displaying
 CC gene expression in samples derived from the human heart via microarrays.
 CC By measuring gene expression, the probes are useful for predicting,
 CC diagnosing, grading, staging, monitoring and prognosing diseases of the
 CC human heart and vascular system e.g. cardiovascular disease,
 CC hypertension, cardiac arrhythmias and congenital heart disease. Note: The
 CC sequence data for this patent did not form part of the printed
 CC specification, but was obtained in electronic format directly from WIPO
 CC at ftp.wipo.int/pub/published_pct_sequences
 XX
 SQ Sequence 75 AA;
 Best Match 100.0%; Score 54; DB 4; Length 75;
 Best Local Similarity 100.0%; Pred. No. 0.27; Indels 0; Gaps 0;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Qy 1 PRCGNPDVA 9
 Db 49 PRCGNPDVA 57

RESULT 28
 ABB40146
 ID ABB40146 standard; peptide; 75 AA.

XX ABG40146;
 AC 19-AUG-2002 (first entry)
 DT Human peptide encoded by genome-derived single exon probe SEQ ID 29811.
 DE Human; single exon probe; asthma; lung cancer; COPD; ILD;
 KW chronic obstructive pulmonary disease; interstitial lung disease;
 KW familial idiopathic pulmonary fibrosis; neurofibromatosis;
 KW tuberous sclerosis; Gaucher's disease; Niemann-Pick disease;
 KW Hermansky-Pudlak syndrome; sarcoidosis; pulmonary haemosiderosis;
 KW pulmonary histiocytosis; lymphangioleiomyomatosis; Karagener syndrome;
 KW pulmonary alveolar proteinosis; fibrocystic pulmonary dysplasia;
 KW primary ciliary dyskinesia; pulmonary hypertension;
 KW hyaline membrane disease.
 XX Homo sapiens.
 OS
 XX W0200186003-A2.
 XX 15-NOV-2001.
 PD
 XX 30-JAN-2001; 2001WO-US000665.
 XX 04-FEB-2000; 2000US-0180312P.
 PR 26-MAY-2000; 2000US-0207456P.
 PR 30-JUN-2000; 2000US-00608408.
 PR 03-AUG-2000; 2000US-00632366.
 PR 21-SEP-2000; 2000US-0234687P.
 PR 27-SEP-2000; 2000US-0236359P.
 PR 04-OCT-2000; 2000GB-00024263.
 XX (MOLE-) MOLECULAR DYNAMICS INC.
 PA Penn SG, Hanzel DK, Chen W, Rank DR;
 XX WPI; 2002-114183/15.
 DR Spatially-addressable set of single exon nucleic acid probes, used to
 PT measure gene expression in human lung samples.
 PT
 XX Claim 27; SEQ ID NO 29811; 634pp; English.
 XX The invention relates to a spatially-addressable set of single exon
 CC nucleic acid probes for measuring gene expression in a sample derived
 CC from human lung comprising single exon nucleic acid probes having one of
 CC 12614 nucleic acid sequences mentioned in the specification, or their
 CC complements or the 12387 open reading frames derived from the 12614
 CC probes. Also included are a microarray comprising the novel set of probes
 CC; the novel set of probes which hybridise at high stringency to a nucleic
 CC acid expressed in the human lung; measuring gene expression in a sample
 CC derived from human lung, comprising (a) contacting the array with a
 CC collection of detectably labeled nucleic acids derived from human lung
 CC mRNA, and (b) measuring the label detectably bound to each probe of the
 CC array; identifying exons in a eukaryotic genome, comprising (a)
 CC algorithmically predicting at least one exon from genomic sequences of
 CC the eukaryote; and (b) detecting specific hybridisation of detectably
 CC labeled nucleic acids from eukaryote lung mRNA, to a single exon probe,
 CC having a fragment identical to the predicted exon, the probe is included
 CC in the above mentioned microarray; assigning exons to a single gene,
 CC comprising (a) identifying exons from genomic sequence by the method
 CC above and (b) measuring the expression of each of the exons in several
 CC tissues and/or cell types using hybridisation to a single exon
 CC microarrays having a probe with the exon, where a common pattern of
 CC expression of the exons in the tissues and/or cell types indicates that
 CC the exons should be assigned to a single gene; a peptide comprising one
 CC of 12011 sequences, mentioned in the specification, or encoded by the
 CC probes/open reading frames (ORF). The probes are used for gene expression
 CC analysis, and for identifying exons in a gene, particularly using human
 CC lung derived mRNA and for the study of lung diseases such as asthma, lung
 CC cancer, chronic obstructive pulmonary disease (COPD), interstitial lung
 CC disease (ILD), familial idiopathic pulmonary fibrosis, neurofibromatosis,

CC tuberosus sclerosis, Gaucher's disease, Niemann-Pick disease, Hermansky-
 CC Pudlak syndrome, sarcoidosis, pulmonary haemosiderosis, pulmonary
 CC histiocytosis, lymphangioleiomyomatosis, pulmonary alveolar proteinosis,
 CC Karsagen syndrome, fibrocystic pulmonary dysplasia, primary ciliary
 CC dyskinesia, pulmonary hypertension and hyaline membrane disease. The
 CC present sequence is a peptide/protein encoded by a single exon probe of
 CC the invention. Note: The sequence data for this patent did not form part
 CC of the printed specification, but was obtained in electronic format
 CC directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
 XX
 SQ Sequence 75 AA;

Query Match 100.0%; Score 54; DB 5; Length 75;
 Best Local Similarity 100.0%; Pred. No. 0.27; Mismatches 0; Indels 0; Gaps 0;
 Matches 9; Conservative 0;

QY 1 PRCGNPDVA 9
 Db 49 PRCGNPDVA 57
 |||||

RESULT 29
 AAY07349
 ID AAY07349 standard; protein; 80 AA.

XX AC AAY07349;
 XX
 XX 25-MAR-2003 (revised)
 DT 16-JUL-1999 (first entry)
 XX
 XX Fragment of human type IV matrix metalloprotease protein.

XX Matrix metalloprotease; inhibitor; tissue damage; angiogenesis; antibody;
 KW arthritis; tumour growth; granulomatous inflammatory condition; enzyme;
 KW metastasis; sarcoidosis.

XX OS Homo sapiens.
 XX
 XX WO9010228-A.

PN 07-SEP-1990.

XX 01-MAR-1989; 89US-00317407.

XX 01-MAR-1989; 89US-00317407.

PR 26-FEB-1990; 90US-00488460.

XX (USDC) US SEC OF COMMERCE.

PA (USSH) NAT INST OF HEALTH.

XX Liotta LA, Stetlerste W, Krutzsh H;

PI WPI; 1990-290458/38.

DR N-PSDB; AAX34392.

XX Matrix metallo:proteinase peptide(s) - used to inhibit enzyme in treating
 PT tissue damage caused by activated enzyme.

PS Disclosure; Fig 13; 61pp; English.

XX This sequence represents a fragment of a human type IV matrix
 CC metalloprotease (MMP) zymogen (precursor protein). The invention relates
 CC to MMP inhibitor peptides which can be used to treat tissue damage caused
 CC by activated MMPs, e.g. for treating inappropriate angiogenesis,
 CC arthritis, tumour growth, invasion and metastasis and granulomatous
 CC inflammatory conditions such as sarcoidosis. Antibodies to the peptides
 CC can be used to detect the MMPs and can distinguish activated from latent
 CC enzyme. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-
 CC 2003 to correct PA field.) (Updated on 25-MAR-2003 to correct PI field.)
 XX

SQ Sequence 80 AA;

Query Match 100.0%; Score 54; DB 2; Length 80;

Best Local Similarity 100.0%; Pred. No. 0.29; Mismatches 0; Indels 0; Gaps 0;
 Matches 9; Conservative 0;

QY 1 PRCGNPDVA 9
 Db 71 PRCGNPDVA 79
 |||||

RESULT 30
 AAG78385
 ID AAG78385 standard; protein; 80 AA.

XX AC AAG78385;

XX 18-JUN-2002 (first entry)

XX Rat/mouse/human matrix metalloproteinase, residues 30-109.

XX Cytostatic; antidiabetic; ophthalmological; antirheumatic; antiarthritic;
 KW antipsoriatic; osteopathic; antiinflammatory; tumour;
 KW antiarteriosclerotic; cancer; neovascularisation; diabetic retinopathy;
 KW rheumatoid arthritis; psoriasis; extracellular matrix destruction;
 KW osteoarthritis; atherosclerosis; matrix metalloproteinase; MMP;
 KW angiogenesis; propeptide; Gelatinase A; type IV collagenase;
 KW EC 3.4.24.24; rat; mouse; human.

XX OS Homo sapiens.
 OS Mus musculus.
 OS Rattus norvegicus.

XX WO200180811-A2.

XX 01-NOV-2001.

XX 19-APR-2001; 2001WO-US040554.

XX 27-APR-2000; 2000US-0200115P.

XX (GEHO) GEN HOSPITAL CORP.

XX Weissbach L;

XX WPI; 2002-034402/04.

XX Use of a polypeptide for inhibiting tumor growth, inhibiting angiogenesis
 PT and inhibiting extracellular matrix destruction, and treating e.g. cancer
 PT and rheumatoid arthritis.

XX Claim 1; Fig 1; 22pp; English.

XX The present sequence represents amino acids 30-109 (the propeptide) of
 CC human, rat and mouse MMP-2 (EC 3.4.24.24). The three sequences are 100%
 CC identical. The specification describes a method of inhibiting tumour
 CC growth, inhibiting angiogenesis or inhibiting extracellular matrix
 CC destruction, comprising the administration of a polypeptide. The
 CC polypeptide may be a matrix metalloproteinase (MMP-2) propeptide or an
 CC MMP-2 propeptide-like polypeptide. MMP-2 is also known as gelatinase A.
 CC The invention has cytostatic, antidiabetic, antirheumatic,
 CC ophthalmological, antiarthritic, antipsoriatic, osteopathic,
 CC antiinflammatory and antiarteriosclerotic. The invention may be used for
 CC treating cancer and other conditions characterised by excessive
 CC neovascularisation, e.g. diabetic retinopathy, rheumatoid arthritis, age-
 CC related macular degeneration and psoriasis; also diseases or disorders
 CC involving extracellular matrix destruction, e.g. osteoarthritis,
 CC periodontal disease and atherosclerosis. The polypeptides may be
 CC administered in combination with conventional anticancer treatments, e.g.
 CC surgery, radiation or chemotherapy

SQ Sequence 80 AA;

Query Match 100.0%; Score 54; DB 5; Length 80;
 Best Local Similarity 100.0%; Pred. No. 0.29; Mismatches 0; Indels 0; Gaps 0;
 Matches 9; Conservative 0;

QY 1 PRGNGPDVA 9
 |||||
 Db 71 PRGNGPDVA 79

RESULT 31
 AAY07338
 ID AAY07338 standard; peptide; 85 AA.
 XX
 AC AAY07338;
 XX 25-MAR-2003 (revised)
 DT 16-JUL-1999 (first entry)
 XX
 DE Fragment of human Type IV matrix metalloprotease protein.
 XX
 KW Matrix metalloprotease; inhibitor; tissue damage; angiogenesis; antibody;
 KW arthritis; tumour growth; granulomatous inflammatory condition; enzyme;
 KW metastasis; sarcoidosis.
 XX
 OS Homo sapiens.
 XX
 PN WO9010228-A.
 XX
 PD 07-SEP-1990.
 XX
 PP 01-MAR-1989; 89US-00317407.
 XX
 PR 01-MAR-1989; 89US-00317407.
 PR 26-FEB-1990; 90US-00488460.
 XX
 PA (USDC) US SEC OF COMMERCE.
 PA (USSH) NAT INST OF HEALTH.
 XX
 PI Liotta LA, Stetlerste W, Krutzsch H;
 XX WPI; 1990-290458/38.
 XX
 DR Matrix metalloproteinase peptide(s) - used to inhibit enzyme in treating
 PT tissue damage caused by activated enzyme.
 XX
 PS Claim 4; Page 41; 61pp; English.
 XX
 CC This sequence represents a fragment of a type IV matrix metalloprotease
 CC (MMP) secreted by human tumour cells. The invention relates to the
 CC generation of MMP inhibitor peptides of the formula: aa1-aa2-aa3-aa4-C
 CC where aa1 and aa4 is R or K; aa2 is K, Q or N; aa3 is P, A, G, L, I or V;
 CC and C is a cysteine having a free sulphydryl group. The peptides can be
 CC used to treat tissue damage caused by activated MMPs, e.g. for treating
 CC inappropriate angiogenesis, arthritis, tumour growth, invasion and
 CC metastasis and granulomatous inflammatory conditions such as sarcoidosis.
 CC Antibodies to the peptides can be used to detect the MMPs and can
 CC distinguish activated from latent enzyme. (Updated on 25-MAR-2003 to
 CC correct PR field.) (Updated on 25-MAR-2003 to correct PA field.) (Updated
 CC on 25-MAR-2003 to correct PI field.)
 XX
 SQ Sequence 85 AA;
 Query Match 100.0%; Score 54; DB 2; Length 85;
 Best Local Similarity 100.0%; Pred. No. 0.31;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRGNGPDVA 9
 |||||
 Db 71 PRGNGPDVA 79

RESULT 32
 AAG78386
 ID AAG78386 standard; protein; 92 AA.
 XX
 AC AAG78386;

XX 18-JUN-2002 (first entry)
 DT Recombinant human MMP-2 propeptide.
 XX
 DE Cytostatic; antidiabetic; ophthalmological; antirheumatic; antiarthritic;
 KW antipsoriatic; osteopathic; antiinflammatory; tumour;
 KW antiarteriosclerotic; cancer; neovascularisation; diabetic retinopathy;
 KW rheumatoid arthritis; psoriasis; extracellular matrix destruction;
 KW osteoarthritis; atherosclerosis; matrix metalloproteinase; MMP;
 KW angiogenesis; propeptide; recombinant protein; Gelatinase A;
 KW type IV collagenase; EC 3.4.24.24; enzyme.
 XX
 XX Homo sapiens.
 OS Synthetic.
 OS
 XX
 FH Key Location/Qualifiers
 FT Domain 5..10
 FT /label= Polyhistidine_tag
 XX
 PN WO200180811-A2.
 XX
 PD 01-NOV-2001.
 XX
 PF 19-APR-2001; 2001WO-US040554.
 XX
 PR 27-APR-2000; 2000US-0200115P.
 XX
 PA (GEHO) GEN HOSPITAL CORP.
 XX
 PI Weissbach L;
 XX
 DR WPI; 2002-034402/04.
 DR N-PSDB; AAI64189.
 XX
 PT Use of a polypeptide for inhibiting tumor growth, inhibiting angiogenesis
 PT and inhibiting extracellular matrix destruction, and treating e.g. cancer
 PT and rheumatoid arthritis.
 XX
 PS Example; Page 9; 22pp; English.
 XX
 CC The present sequence is that of a recombinant human MMP-2 propeptide with
 CC a N-terminal polyhistidine tag (EC 3.4.24.24). The propeptide is encoded
 CC by the nucleotide sequence given in AAI64189. The specification describes
 CC a method of inhibiting tumour growth, inhibiting angiogenesis or
 CC inhibiting extracellular matrix destruction, comprising the
 CC administration of a polypeptide. The polypeptide may be a matrix
 CC metalloproteinase (MMP-2) propeptide or an MMP-2 propeptide-like
 CC polypeptide. MMP-2 is also known as Gelatinase A. The invention has
 CC cytostatic, antidiabetic, antirheumatic, ophthalmological, antiarthritic,
 CC antipsoriatic, osteopathic, antiinflammatory and antiarteriosclerotic.
 CC The invention may be used for treating cancer and other conditions
 CC characterised by excessive neovascularisation, e.g. diabetic retinopathy,
 CC rheumatoid arthritis, age-related macular degeneration and psoriasis;
 CC also diseases or disorders involving extracellular matrix destruction,
 CC e.g. osteoarthritis, periodontal disease and atherosclerosis. The
 CC polypeptides may be administered in combination with conventional
 CC anticancer treatments, e.g. surgery, radiation or chemotherapy
 XX
 SQ Sequence 92 AA;
 Query Match 100.0%; Score 54; DB 5; Length 92;
 Best Local Similarity 100.0%; Pred. No. 0.33;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRGNGPDVA 9
 |||||
 Db 83 PRGNGPDVA 91

RESULT 33
 AEA20074
 ID AEA20074 standard; protein; 194 AA.

XX AC ABA20074;
XX DT 11-AUG-2005 (first entry)
XX DE Novel human polypeptide SEQ ID NO 768.
XX KW vulnary; CNS-gen.; gene therapy; diagnostic; forensic; mapping;
KW DNA purification; protein purification; osteoarthritis; antiarthritis;
KW osteopathic; musculoskeletal disease; osteoporosis; endocrine disease;
KW periodontal disease; antiinflammatory; mouth disease; burns; injury;
KW peripheral neuropathy; Alzheimer's disease; neuroprotective; neurotropic;
KW degeneration; parkinson's disease; antiparkinsonian; neurological disease;
KW cerebrovascular ischemia; cerebroprotective; vasotropic;
KW cardiovascular disease; autoimmune disease; immunosuppressive;
KW immune disorder; viral infection; virucide; infection; cancer;
KW cytosstatic; neoplasm.
XX OS Homo sapiens.
XX AC WO2005049806-A2.
XX PN 02-JUN-2005.
XX PD 11-MAR-2004; 2004WO-US007412.
XX PF 14-MAR-2003; 2003US-00389559.
XX PR (NUVE-) NUVELO INC.
XX PA Tang TY, Wang J, Wang ZW, Zhang J, Ren F, Zhou P, Ma Y;
PI Ghosh M, Xue A, Asundi V, Zhao Q, Wang D, Goodrich R, Chen R;
PI Wehrman T, Weng G, Boyle B;
XX WPI: 2005-417730/42.
DR N-PSDB; AEA19507.
XX New polynucleotide encoding a polypeptide with biological activity,
PT useful for treating a disease or disorder, e.g. osteoarthritis, burns,
PT CNS and peripheral disease, stroke, autoimmune disorders, viral
PT infection, or cancer.
XX Claim 20; SEQ ID NO 768; 500pp; English.
XX The invention describes a new isolated polynucleotide (I) encoding a
CC polypeptide with biological activity comprising: a nucleotide sequence of
CC SEQ ID NOS: 1-567 (fully defined); a nucleotide sequence that hybridizes
CC to the sequence of (I) under stringent hybridization conditions; or a
CC nucleotide sequence having greater than 99% sequence identity with the
CC sequence of (I). Also described are: a(n) (expression) vector comprising
CC (I); a host cell genetically engineered to comprise (I) operatively,
CC associated with a regulatory sequence that modulates expression of the
CC polynucleotide in the host cell; an isolated polypeptide comprising a
CC sequence of SEQ ID NOS: 568-1134 (fully defined), where the polypeptide
CC is: a polypeptide encoded by (I); or a polypeptide encoded by a
CC polynucleotide hybridizing under stringent conditions with any one of SEQ
CC ID NOS: 1-567; a composition comprising the polypeptide of (3) and a
CC carrier; an antibody directed against the polypeptide of (3); a method
CC for detecting (I) in a sample; a method for detecting the polypeptide of
CC (3) in a sample; a method for identifying a compound that binds to the
CC polypeptide of (3); a method of producing the polypeptide of (3); and a
CC collection of polynucleotides, where the collection comprising of at
CC least one of SEQ ID NOS: 1-567. (I) is a polynucleotide comprising any of
CC the sequences of SEQ ID NOS: 1-567 encoding a polypeptide with biological
CC activity, which comprises any of the amino acid sequence of SEQ ID NOS:
CC 568-1134. All sequences are fully defined in the specification. The
CC sequences and methods are useful in diagnostics, forensic, and gene
CC mapping, in identifying of mutations responsible for genetic disorders or
CC other traits, in assessing biodiversity, and for producing many other
CC types of data and products dependent on DNA and amino acid sequences. The
CC composition and method are useful for treating a disease or disorder,
CC e.g. osteoporosis, osteoarthritis, periodontal disease, burns, CNS and
CC peripheral disease, Alzheimer's disease, Parkinson's disease, stroke,

CC autoimmune disorders, viral infection, or cancer. This is the amino acid
CC sequence of a novel polypeptide of the invention.
XX SQ Sequence 194 AA;
Query Match 100.0%; Score 54; DB 9; Length 194;
Best Local Similarity 100.0%; Pred. No. 0.71; Indels 0; Gaps 0;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 PRCGNPDVA 9
Db ||||| 73
65 PRCGNPDVA 73
RESULT 34
ADFS9546
ID ADF59546 standard; protein; 445 AA.
XX AC ADF59546;
XX DT 12-FEB-2004 (first entry)
XX DE Human polypeptide sequence SEQ ID NO:1954.
XX KW biological activity; genetic engineering; hybridisation probe; oligomer;
KW primer; chromosome mapping; gene mapping; recombinant protein production;
KW human.
XX OS Homo sapiens.
XX PN WO2003080795-A2.
XX PD 02-OCT-2003.
XX PF 09-AUG-2002; 2002WO-US025485.
XX PR 09-AUG-2001; 2001US-0311261P.
XX PA (HYSE-) HYSEQ INC.
XX PI Tang YT, Yang Y, Wang Z, Weng G, Ma Y;
XX WPI: 2003-876918/81.
DR N-PSDB; ADF58546.
XX New polynucleotides, useful as hybridization probes, oligomers or
PT primers, for chromosome or gene mapping, for the recombinant production
PT of proteins, and for generating antisense DNA or RNA.
XX Claim 20; SEQ ID NO 1954; 571pp; English.
XX The present sequence represents a polypeptide (II) with biological
CC activity, which is encoded by an isolated polynucleotide sequence (I)
CC from the present invention. Also described: (1) a vector comprising (I);
CC (2) an expression vector comprising (I); (3) a host cell genetically
CC engineered to comprise (I) which is operatively associated with a
CC regulatory sequence that modulates expression of (I) in the host cell;
CC (4) a polypeptide (II) encoded by (I); (5) a composition comprising the
CC polypeptide of (4) and a carrier; (6) an antibody directed against the
CC polypeptide of (4); (7) detecting (I) or the polypeptide of (4) in a
CC sample; (8) identifying a compound that binds to the polypeptide of (4);
CC (9) producing the polypeptide of (4); and (10) a collection of
CC polynucleotides comprising at least one of the polynucleotide sequences
CC (I). The polynucleotides (I) can be used as hybridisation probes,
CC oligomers or primers, for chromosome or gene mapping, for the recombinant
CC production of proteins, and for generating antisense DNA or RNA.
XX SQ Sequence 445 AA;
Query Match 100.0%; Score 54; DB 7; Length 445;
Best Local Similarity 100.0%; Pred. No. 1.6;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
| | | | |
Db 100 PRCGNPDVA 108

RESULT 35
AEA90447
ID AEA90447 standard; protein; 462 AA.

AC AEA90447;
XX 08-SEP-2005 (first entry)
XX

DE Human lung specific protein, DEX0486_001.aa.1.

KW DNA hybridization; diagnosis; diagnostic; lung tumor; vaccine;
KW cytosolic; gene therapy; drug screening.

XX Homo sapiens.

XX US2005142572-A1.

XX 30-JUN-2005.

XX 24-MAY-2004; 2004US-00852707.

XX 22-MAY-2003; 2003US-0473941P.

XX (MACI// MACINA R A.

XX (TURN// TURNER L R.

XX (SUNY// SUN Y.

XX Macina RA, Turner LR, Sun Y;

XX WPI; 2005-457785/46.

XX New nucleic acid molecule from Homo sapiens, useful for identifying,
PT diagnosing, monitoring, staging, imaging and treating a patient with lung
PT cancer and non-cancerous diseases.

XX Claim 12; SEQ ID NO 56; 247pp; English.

XX The present invention relates to human nucleic acid molecules that are
CC specific to lung cells, lung tissue and/or the lung organ. These lung
CC specific nucleic acids may be naturally occurring cDNA, genomic DNA, RNA
CC or a fragment, or a non-naturally occurring nucleic acid. Due to
CC alternative splicing and transcriptional modification one lung-specific
CC gene may encode for multiple lung specific RNA's. Specifically claimed is
CC new isolated nucleic acid molecule encoding a protein sequence selected
CC from 83 (SEQ ID NO: 56-138) sequences; and a nucleic acid selected from
CC 56 (SEQ ID NO: 1-55) sequences. Described is a method of determining the
CC presence of a lung specific nucleic acid or protein in a sample; and a
CC method of diagnosing or monitoring the presence and metastases of lung
CC cancer in a patient. Claimed is a vaccine comprising the polypeptide or
CC the nucleic acid encoding the polypeptide. Determining the presence of a
CC lung specific nucleic acid in a sample comprises contacting the sample
CC with a nucleic acid molecule above which will hybridize to a lung
CC specific nucleic acid. A composition consisting of the nucleic acid
CC molecule or the polypeptide is useful for treating a patient with lung
CC cancer, where the administration induces an immune response against the
CC lung cancer cell expressing the nucleic acid molecule or polypeptide. The
CC nucleic acid molecule and polypeptide are also useful for identifying,
CC diagnosing, monitoring, staging, imaging and treating non-cancerous
CC disease states in lung, identifying lung tissue, monitoring and
CC identifying and/or designing (ant)agonists of the polypeptide, and for
CC gene therapy. The present sequence is a human lung specific protein.

XX Sequence 462 AA;

Query Match 100.0%; Score 54; DB 9; Length 462;
Best Local Similarity 100.0%; Pred. No. 1.7;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
| | | | |
Db 100 PRCGNPDVA 108

RESULT 36
ABG24001
ID ABG24001 standard; protein; 468 AA.

XX ABG24001;

XX 18-FEB-2002 (first entry)

XX Novel human diagnostic protein #23992.

KW Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW food supplement; medical imaging; diagnostic; genetic disorder.

XX Homo sapiens.

XX WO200175067-A2.

XX 11-OCT-2001.

XX 30-MAR-2001; 2001WO-US008631.

XX 31-MAR-2000; 2000US-00540217.

XX 23-AUG-2000; 2000US-00649167.

XX (HYSE-) HYSEQ INC.

XX Drmanac RT, Liu C, Tang YT;

XX WPI; 2001-639362/73.

XX N-PSDB; AAS88188.

XX New isolated polynucleotide and encoded polypeptides, useful in
PT diagnostics, forensics, gene mapping, identification of mutations
PT responsible for genetic disorders or other traits and to assess
PT biodiversity.

XX Claim 20; SEQ ID NO 54360; 103pp; English.

XX The invention relates to isolated polynucleotide (I) and polypeptide (II)
CC sequences. (I) is useful as hybridisation probes, polymerase chain
CC reaction (PCR) primers, oligomers, and for chromosome and gene mapping,
CC and in recombinant production of (II). The polynucleotides are also used
CC in diagnostics as expressed sequence tags for identifying expressed
CC genes. (I) is useful in gene therapy techniques to restore normal
CC activity of (II) or to treat disease states involving (II). (II) is
CC useful for generating antibodies against it, detecting or quantitating a
CC polypeptide in tissue, as molecular weight markers and as a food
CC supplement. (II) and its binding partners are useful in medical imaging
CC of sites expressing (II). (I) and (II) are useful for treating disorders
CC involving aberrant protein expression or biological activity. The
CC polypeptide and polynucleotide sequences have applications in
CC diagnostics, forensics, gene mapping, identification of mutations
CC responsible for genetic disorders or other traits to assess biodiversity
CC and to produce other types of data and products dependent on DNA and
CC amino acid sequences. ABG0010-ABG30377 represent novel human diagnostic
CC amino acid sequences of the invention. Note: The sequence data for this
CC patent did not appear in the printed specification, but was obtained in
CC electronic format directly from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences

XX Sequence 468 AA;

Query Match 100.0%; Score 54; DB 4; Length 468;
Best Local Similarity 100.0%; Pred. No. 1.7;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
| | | | |

```
Db      86  PRCGNPDVA 94

RESULT 37
ABM84057
ID      ABM84057 standard; protein; 623 AA.
XX
AC      ABM84057;
XX
XX      18-NOV-2004 (first entry)
XX
DE      Human diagnostic and therapeutic pprotein SEQ ID NO:4306.
XX
KW      gene therapy; human diagnostic and therapeutic polynucleotide; dithp.
XX
OS      Homo sapiens.
XX
PN      WO2004023973-A2.
XX
PD      25-MAR-2004.
XX
PF      12-SEP-2003; 2003WO-US028227.
XX
PR      12-SEP-2002; 2002US-0410259P.
XX
PR      12-SEP-2002; 2002US-0410260P.
XX
XX      (INCY-) INCYTE CORP.
XX
PI      Schmidt JP, Wright RJ, Bruns CM, Marjanovic MM, Shen F,
PI      Harthorne TA, Suchorolski MT, Altus CM, Pitts SJ, Elder LV;
PI      Mooney EM, Delegeane AM, Panesar IS, Banville SC, Reddy TP;
PI      Stevens KA, Blanchard JL, Panzer SR, Wang X, Au AP, Gerstin EH;
PI      Peralta CH, Anderson SB, Rioux P, Shen EJ, Wu MC, Stuve LL;
PI      Lagace RE, Spiro PA, Stewart EA, Wingrove J, Vitt UA, Kirtan ES;
PI      Xu Y, Kwong M, Policky JL, Hurwitz BL, Ma Y, Jackson JL, Gietzen D;
PI      Patury S, Shi X, Suarez CJ;
XX
XX      WPI; 2004-329368/30.
DR      N-PSDB; ACN42709.
XX
XX      New diagnostic and therapeutic polynucleotides and polypeptides, useful
XX      in diagnosing a condition, disease or disorder associated with human
XX      molecules, e.g. autoimmune or inflammatory disorders, in gene therapy or
XX      in gene mapping.
XX
XX      Claim 27; Page; 190pp; English.
XX
XX      The invention relates to novel diagnostic and therapeutic polynucleotides
XX      selected from one of the 2722 sequences defined in the specification. A
XX      polynucleotide of the invention may have a use in gene therapy. the human
XX      diagnostic and therapeutic polynucleotides (dithp) or polypeptides may be
XX      used to diagnose a particular condition, disease or disorder associated
XX      with human molecules, e.g. cell proliferative disorders,
XX      autoimmune/inflammatory disorder, developmental disorder, endocrine
XX      disorder, neurological disorders, gastrointestinal disorders, or
XX      infections caused by virus, bacteria, fungi or parasite. the dithp
XX      molecules may also be used in genetic mapping, in identifying individuals
XX      from minute biological samples, in detecting single nucleotide
XX      polymorphisms, as molecular weight markers, and for somatic or germline
XX      gene therapy. The present sequence represents a dithp protein of the
XX      invention. Note: The sequence data for this patent is not represented in
XX      the printed specification, but was obtained in electronic format directly
XX      from WIPO at www.wipo.int/pct/en/sequences/listing.htm
XX
XX      Sequence 623 AA;
XX
XX      Query Match      100.0%; Score 54; DB 8; Length 623;
XX      Best Local Similarity 100.0%; Pred. No. 2.3;
XX      Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
QY      1  PRCGNPDVA 9
Db      100  PRCGNPDVA 108

RESULT 38
AAP96143
ID      AAP96143 standard; protein; 631 AA.
XX
AC      AAP96143;
XX
XX      25-MAR-2003 (revised)
XX      09-MAY-1991 (first entry)
XX
DE      Sequence of human type IV collagenase (gelatinase) in pGEL 186.2.
XX
KW      Hypertrophic scar; keloid; intervertebral disc disease; enzyme.
XX
OS      Homo sapiens.
XX
PN      GB2209526-A.
XX
PD      17-MAY-1989.
XX
PF      02-SEP-1988; 88GB-00820803.
XX
PR      04-SEP-1987; 87US-00093421.
XX
XX      (UNIW ) UNIV WASHINGTON.
XX
XX      Eisen AZ, Goldberg GI;
XX      WPI; 1989-147011/20.
DR      N-PSDB; AAN91700.
XX
XX      DNA encoding human type IV collagenase (gelatinase) - for use in the
XX      treatment of hypertrophic scars, keloids and intervertebral disc disease.
XX
XX      Disclosure; Fig 3; 36pp; English.
XX
XX      The original source of the protein material was H-ras transformed human
XX      bronchial epithelial cells (T86-1). The AA sequence was then used to
XX      develop oligonucleotide probes which were used to screen a cDNA library
XX      of human skin fibroblast mRNA. The longest clone, pGEL 186.2, represented
XX      almost the full gelatinase mRNA sequence except the leader sequence
XX      encoding the first few AA's of the signal peptide. (Updated on 25-MAR-
XX      2003 to correct PF field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
XX      (Updated on 25-MAR-2003 to correct PI field.)
XX
XX      Sequence 631 AA;
XX
XX      Query Match      100.0%; Score 54; DB 1; Length 631;
XX      Best Local Similarity 100.0%; Pred. No. 2.3;
XX      Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
QY      1  PRCGNPDVA 9
Db      71  PRCGNPDVA 79

RESULT 39
AAP91139
ID      AAP91139 standard; protein; 631 AA.
XX
XX      AAP91139;
XX
XX      25-MAR-2003 (revised)
XX      18-DEC-1989 (first entry)
XX
DE      Human type IV collagenase (gelatinase).
XX
KW      Human type IV collagenase; gelatinase; hypertrophic scars; keloids;
KW      intervertebral disc disease; extracellular matrix metalloprotease;
KW      bronchial epithelial cells; T86-1 cells; pGel186.2; type II motif;
KW      fibonectin; collagen-binding domain.
XX
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OS Homo sapiens.
XX Key Location/Qualifiers
XX Domain 1..192
XX Domain 193..367
XX Duplication 197..254
XX Duplication 255..312
XX Duplication 313..368
XX Domain 368..631
XX
XX GB2209526-A.
XX
XX 17-MAY-1989.
XX
XX 02-SEP-1988; 88GB-00820803.
XX
XX 04-SEP-1987; 87US-00093421.
XX (UNIW ) UNIV WASHINGTON.
XX Eisen AZ, Goldberg GI;
XX WPI; 1989-147011/20.
XX
XX DNA encoding human type IV collagenase (gelatinase) - for use in the
XX treatment of hypertrophic scars, keloids and intervertebral disc disease.
XX
XX Claim 2; Fig 6; 36pp; English.
XX
XX Human type IV collagenase (gelatinase). Protein source was H-ras
XX transformed human bronchial epithelial cells (TBE-1). The sequence was
XX determined from clone pGel 186.2 which represents almost the full mRNA
XX sequence. Feature 1 is the N-terminal domain, I; feature 2 is a middle
XX domain, II, which is organised into 3 x 58 amino acid long head to tail
XX repeats (features 4,5, and 6). These show homology to the type II motif
XX collagen binding domain of fibronectin. Feature 3 is the C-terminal
XX domain. The enzyme could be used in the treatment of hypertrophic scars,
XX keloids, and intervertebral disc disease. See also AAN91700. (Updated on
XX 25-MAR-2003 to correct PF field.) (Updated on 25-MAR-2003 to correct PA
XX field.) (Updated on 25-MAR-2003 to correct PI field.)
XX
XX SQ Sequence 631 AA;

Query Match 100.0%; Score 54; DB 1; Length 631;
Best Local Similarity 100.0%; Pred. No. 2.3;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
Db |||||
71 PRCGNPDVA 79

RESULT 40
AAR07969
ID AAR07969 standard; protein; 631 AA.
XX
XX AAR07969;
AC
XX 25-MAR-2003 (revised)
DT 17-DEC-2001 (revised)
DT 16-JAN-1991 (first entry)
XX
XX Complete type IV collagenase.
XX
XX Type IV collagenase; peptide fragments; metalloproteinase detection;
XX antibodies; metalloproteinase inhibition; angiogenesis; arthritis;
XX tumour growth; metastasis; granulomatous inflammatory conditions;
XX sarcoidosis.
XX
XX Homo sapiens.
XX
XX Key Location/Qualifiers
XX Peptide 1..18

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FT Peptide /label= 1
FT 19..33
FT Peptide /label= 2
FT 26..42
FT Peptide /label= 3
FT 34..50
FT Protein /label= 4
FT 51..66
FT Peptide /label= 5
FT 67..89
FT Peptide /label= 7
FT 67..80
FT Peptide /label= 6
FT 69..75
FT Peptide /label= 8
FT 75..94
FT Peptide /label= 9
FT 141..150
FT Peptide /label= 10
FT 299..307
FT Peptide /label= 11
FT 308..318
FT Peptide /label= 12
FT 344..368
FT Peptide /label= 13
FT 371..386
FT Peptide /label= 14
FT 372..375
FT Peptide /label= 15
FT 472..491
FT Peptide /label= 16

USN7317407-N.
XX
XX 21-AUG-1990.
XX
XX 01-MAR-1989; 89US-00317407.
XX
XX 01-MAR-1989; 89US-00317407.
XX (USSH ) US NAT CANCER INST.
XX (USDC ) US SEC OF COMMERCE.
XX
XX Liotta LA, Stetlerste W, Krutzsch H;
XX
XX WPI; 1990-290093/38.
XX
XX New type-IV collagenase peptide fragments - used for metallo-proteinase
XX detection and inhibition and for producing antibodies for enzyme
XX detection.
XX
XX Disclosure; Fig 1; -pp; English.
XX
XX Type IV procollagenase was purified from human A2058 melanoma cells. The
XX complete amino acid sequence was determined (see also Hoyhtya, M. et al,
XX (1988) FEBS Letters 233, 109-113). Based on this sequence, peptides were
XX synthesised (see features) having homology with a histidine contg. domain
XX at residues 371-386, a cysteine contg. domain at residues 200-370, the 80
XX residue amino terminus or a region 159 residues from the carboxy
XX terminus. These regions correspond to the domain of the enzyme involved
XX in enzyme activation and interaction of the enzyme with the substrate.
XX The peptides are useful in metalloproteinase detection and inhibition.
XX They can be used in the treatment of inappropriate angiogenesis,
XX arthritis, tumour growth, invasion and metastasis and granulomatous
XX inflammatory conditions such as sarcoidosis. The peptides can be used to
XX produce antibodies. Peptide 6, at concn. of 0.1 mM inhibited 80% of the
XX enzyme activity. See also US7494796-A and WO9010228. (Note: Revised entry
XX submitted to correct the patent number format of US Government-owned NTIS
XX applications to prevent clashes with ongoing US granted patent numbers.
XX For further information please visit the Derwent web site at
XX www.derwent.com/dwpi/updates/ntis.us.html.) (Updated on 25-MAR-2003 to
XX correct PA field.) (Updated on 25-MAR-2003 to correct PI field.)
XX

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SQ Sequence 631 AA;
Query Match 100.0%; Score 54; DB 2; Length 631;
Best Local Similarity 100.0%; Pred. No. 2.3;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 71 PRCGNPDVA 79

RESULT 41
AAV07350
ID AAV07350 standard; protein; 631 AA.
XX AC AAY07350;
XX DT 25-MAR-2003 (revised)
XX DT 16-JUL-1999 (first entry)
XX DE Human type IV matrix metalloprotease protein.
XX KW Matrix metalloprotease; inhibitor; tissue damage; angiogenesis; antibody;
XX KW arthritis; tumour growth; granulomatous inflammatory condition; enzyme;
XX KW metastasis; sarcoidosis.
XX OS Homo sapiens.
XX FH Key Location/Qualifiers
XX FT Misc-difference 452
XX FT /note= "designated in specification as U"
XX PN WO9010228-A.
XX PD 07-SEP-1990.
XX PF 01-MAR-1989; 89US-00317407.
XX PR 01-MAR-1989; 89US-00317407.
XX PR 26-FEB-1990; 90US-00488460.
XX PA (USDC ) US SEC OF COMMERCE.
XX PA (USSH ) NAT INST OF HEALTH.
XX PI Liotta LA, Stetlerste W, Krutzsh H;
XX DR WPI; 1990-290458/38.
XX PT Matrix metallo:proteinase peptide(s) - used to inhibit enzyme in treating
XX PT tissue damage caused by activated enzyme.
XX PS Disclosure; Fig 1; 61pp; English.
XX CC This sequence represents a human type IV matrix metalloprotease (MMP)
XX CC zymogen (precursor protein). The invention relates to MMP inhibitor
XX CC peptides which can be used to treat tissue damage caused by activated
XX CC MMPs, e.g. for treating inappropriate angiogenesis, arthritis, tumour
XX CC growth, invasion and metastasis and granulomatous inflammatory conditions
XX CC such as sarcoidosis. Antibodies to the peptides can be used to detect the
XX CC MMPs and can distinguish activated from latent enzyme. (Updated on 25-MAR
XX CC -2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PA field.)
XX CC (Updated on 25-MAR-2003 to correct PI field.)
XX SQ Sequence 631 AA;
Query Match 100.0%; Score 54; DB 2; Length 631;
Best Local Similarity 100.0%; Pred. No. 2.3;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 71 PRCGNPDVA 79

RESULT 42
AAW41226
ID AAW41226 standard; protein; 631 AA.
XX AC AAW41226;
XX DT 09-JUN-1998 (first entry)
XX DE Human mature matrix metalloprotease-2 (MMP-2) protein sequence.
XX KW Matrix metalloprotease-2; MMP-2; alpha-v-beta-5 antagonist; treatment;
XX KW vitronectin receptor; inhibition; angiogenesis; integrin; tumour growth;
XX KW restenosis; neovascularisation.
XX OS Homo sapiens.
XX PN WO9745447-A1.
XX PD 04-DEC-1997.
XX PF 30-MAY-1997; 97WO-US0009099.
XX PR 31-MAY-1996; 96US-0015869P.
XX PR 31-MAY-1996; 96US-0018733P.
XX PA (SCRI ) SCRIPPS RES INST.
XX PI Brooks P, Cheresh DA, Friedlander M;
XX DR WPI; 1998-041758/04.
XX PT Packaging material containing polypeptide antagonist of alphav, betas
XX PT integrin - used for inhibition of angiogenesis, and for treating tumours,
XX PT inflammation, eye diseases etc.
XX PS Disclosure; Fig 16; 117pp; English.
XX CC The present sequence represents the mature protein of human matrix
XX CC metalloprotease-2 (MMP-2). Fragments of this protein (AAW41228-33) are
XX CC able to act as alpha-v-beta-5 antagonists. Alpha-v-beta-5 is a
XX CC vitronectin receptor. Inhibitors of alpha-v-beta-5 can inhibit
XX CC angiogenesis. The specification describes a novel labelled package that
XX CC contains an inhibitor of angiogenesis i.e. an alpha-v-beta-5 antagonising
XX CC polypeptide that binds to integrin alpha-v-beta-5 and includes a part of
XX CC the C-terminal domain of MMP. The antagonists are used to inhibit
XX CC angiogenesis in inflamed tissue, in solid tumours or metastases, and in a
XX CC wide range of ocular disorders (e.g. diabetic or other forms of
XX CC retinopathy, neovascular glaucoma, or corneal transplants). They are
XX CC particularly used to induce regression or to inhibit growth of tumours.
XX CC The alpha-v-beta-5 antagonists can also be used to treat restenosis
XX CC caused by migration of smooth muscle cells following angioplasty and to
XX CC reduce blood supply to selected tissues. The antagonists particularly
XX CC inhibit neovascularisation where this is induced by cytokines, e.g.
XX CC transforming growth factor alpha, epidermal growth factor or especially
XX CC vascular endothelial growth factor
XX SQ Sequence 631 AA;
Query Match 100.0%; Score 54; DB 2; Length 631;
Best Local Similarity 100.0%; Pred. No. 2.3;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 71 PRCGNPDVA 79

RESULT 43
ADM48668
ID ADM48668 standard; protein; 631 AA.
XX AC ADM48668;

```

XX 03-JUN-2004 (first entry)
 XX Human matrix metalloproteinase-2 (MMP-2) protein.
 XX
 DE Cancer; metastasis; matrix metalloproteinase-2; MMP-2; vaccine;
 XX immune response; gene therapy; cytotatic; enzyme; human.
 XX
 XX Homo sapiens.
 XX
 XX US2003139345-A1.
 XX
 XX 24-JUL-2003.
 XX
 XX 23-JAN-2003; 2003US-00350258.
 XX
 XX 23-JAN-2002; 2002US-0351317P.
 XX
 XX (NETK/) NETKE S.
 XX (NIED/) NIEDZWIECKI A.
 XX (RATH/) RATH M.
 XX
 XX Netke S, Niedzwiecki A, Rath M;
 XX WPI; 2003-897356/82.
 XX
 XX New synthetic oligopeptide, useful for blocking or treating cancer
 XX invasion and metastases in a human patient, particularly as a vaccine for
 XX treating or preventing diagnosing brain cancer, lung cancer, skin cancer
 XX or breast cancer.
 XX
 XX Example 1; Fig 1; 11pp; English.
 XX
 XX The present invention relates to novel synthetic oligopeptides effective
 XX in blocking cancer invasion and metastasis. The invention relates to
 XX matrix metalloproteinase-2 (MMP-2) peptides. The synthetic oligopeptides
 XX are useful as pharmaceutical compositions for blocking or treating cancer
 XX invasion and metastases in a human patient. In particular, they are
 XX useful for treating brain cancer, lung cancer, skin cancer or breast
 XX cancer. The oligopeptides are also useful as vaccines for preventing
 XX these cancers, enhancing immune response or raising antibodies for assays
 XX used to diagnose diseases involving matrix metalloproteinases or clinical
 XX monitoring of the progression or regression of disease. They are also
 XX useful in gene therapy. The present sequence is the human MMP-2 protein.
 XX
 XX Sequence 631 AA;
 XX
 XX Query Match 100.0%; Score 54; DB 7; Length 631;
 XX Best Local Similarity 100.0%; Pred. No. 2.3;
 XX Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 XX
 XX QY 1 PRCGNPDVA 9
 XX |||||
 XX 71 PRCGNPDVA 79
 XX
 XX RESULT 44
 XX ADT05996
 XX ID ADT05996 standard; protein; 631 AA.
 XX
 XX AC ADT05996;
 XX
 XX DT 30-DEC-2004 (first entry)
 XX
 XX Human mature matrix metalloprotease (MMP-2).
 XX
 XX Angiogenesis inhibitor; integrin alpha-v beta-3 antagonist;
 XX vitronectin receptor antagonist; neovascularisation; cancer; tumour;
 XX inflammation; rheumatoid arthritis; retina; diabetic retinopathy;
 XX restenosis; smooth muscle cell migration; angioplasty; antiangiogenic;
 XX cytotatic; antiinflammatory; antiarthritic; antirheumatic;
 XX ophthalmological; antidiabetic; vasotropic; muscular-gen.;
 XX peptidomimetic; matrix metalloprotease 2; MMP-2; gelatinase; human;

KW enzyme.
 XX Homo sapiens.
 XX
 XX Key Location/Qualifiers
 XX Region 410..631
 XX /note= "Corresponds to SEQ ID NO:17"
 XX Domain 439..631
 XX /label = Hemopexin domain
 XX Region 439..546
 XX /note= "Corresponds to SEQ ID NO:18"
 XX Region 439..512
 XX /note= "Corresponds to SEQ ID NO:20"
 XX Region 510..631
 XX /note= "Corresponds to SEQ ID NO:19"
 XX Region 543..631
 XX /note= "Corresponds to SEQ ID NO:21"
 XX /note= "Corresponds to SEQ ID NO:22"
 XX
 XX WO2004087057-A2.
 XX
 XX 14-OCT-2004.
 XX
 XX 26-MAR-2004; 2004WO-US009321.
 XX
 XX 28-MAR-2003; 2003US-00402212.
 XX
 XX (SCRI) SCRIPPS RES INST.
 XX
 XX Brooks PC, Cheres DA;
 XX WPI; 2004-737508/72.
 XX
 XX Administration of composition comprising organic peptidomimetic alpha-v
 XX beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue
 XX angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
 XX
 XX Example 2; Fig 7A-C; 184pp; English.
 XX
 XX The invention relates to a method of inhibiting angiogenesis in a tissue
 XX by the administration of a composition comprising an organic
 XX peptidomimetic antagonist of integrin alpha-v beta-3 (vitronectin
 XX receptor). The integrin alpha-v beta-3 antagonist and compositions
 XX containing it are useful for inhibiting angiogenesis in a variety of
 XX medical conditions. The antagonist may be used to induce the regression
 XX of solid tumours or solid tumour metastases; to inhibit the growth of
 XX solid tumours undergoing neovascularisation; to treat inflamed tissue in
 XX which neovascularisation is occurring (e.g., in rheumatoid arthritis); to
 XX treat neovascularisation in retinal tissue (e.g., in diabetic
 XX retinopathy); to treat restenosis in a tissue by inhibiting smooth muscle
 XX cell migration (such as that which occurs following angioplasty); and to
 XX reduce the blood supply to a tissue required to support new growth of the
 XX tissue. The present sequence represents human mature matrix
 XX metalloprotease 2 (MMP-2, gelatinase) used in an example of the
 XX invention.
 XX
 XX Sequence 631 AA;
 XX
 XX Query Match 100.0%; Score 54; DB 8; Length 631;
 XX Best Local Similarity 100.0%; Pred. No. 2.3;
 XX Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 XX
 XX QY 1 PRCGNPDVA 9
 XX |||||
 XX 71 PRCGNPDVA 79
 XX
 XX RESULT 45
 XX ADT05997
 XX ID ADT05997 standard; protein; 633 AA.
 XX
 XX AC ADT05997;
 XX
 XX DT 30-DEC-2004 (first entry)
 XX
 XX Human mature matrix metalloprotease (MMP-2).
 XX
 XX Angiogenesis inhibitor; integrin alpha-v beta-3 antagonist;
 XX vitronectin receptor antagonist; neovascularisation; cancer; tumour;
 XX inflammation; rheumatoid arthritis; retina; diabetic retinopathy;
 XX restenosis; smooth muscle cell migration; angioplasty; antiangiogenic;
 XX cytotatic; antiinflammatory; antiarthritic; antirheumatic;
 XX ophthalmological; antidiabetic; vasotropic; muscular-gen.;
 XX peptidomimetic; matrix metalloprotease 2; MMP-2; gelatinase; human;


```
DE Type IV collagenase cDNA product.
XX hypertrophic scars; keloids; intervertebral disc disease; ds.
XX Homo sapiens.
XX US4923818-A.
XX 08-MAY-1990.
XX 15-MAY-1989; 89US-00352069.
XX 15-MAY-1989; 89US-00352069.
XX (UNIV ) UNIV WASHINGTON.
XX Goldberg GL, Eisen AZ;
XX WPI; 1990-245482/32.
XX N-PSDB; AAQ05620.
XX Recombinant human type IV collagenase - used in treatment of hypertrophic
PT scars, keloids and intervertebral disc disease.
XX Claim 3; Fig 9; 23pp; English.
XX cDNA clone enables production of type IV collagenase, useful in
CC catalysing cleavage of extracellular matrix macromolecules, and in
CC treatment of hypertrophic scars, keloids and intervertebral disc disease.
CC (Updated on 25-MAR-2003 to correct PA field.)
XX
XX Sequence 660 AA;
QY Query Match 100.0%; Score 54; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 2.4;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
DB 1 PRCGNPDVA 9
100 PRCGNPDVA 108
RESULT 48
AAB84607
ID AAB84607 standard; protein; 660 AA.
XX
AC AAB84607;
XX
XX 05-SEP-2001 (first entry)
XX
DE Amino acid sequence of matrix metalloproteinase gelatinase A.
XX
KW Growth factor; protein inhibitor; protease; damaged tissue;
KW platelet-derived growth factor; PDGF; fibroblast growth factor; FGF;
KW connective tissue derived growth factor; CTGF; chrysalin; VEGF;
KW keratinocyte-derived growth factor; KGF; epidermal growth factor; EGF;
KW transforming growth factor-beta; TGF-beta; matrix metalloproteinase; MMP;
KW granulocyte macrophage colony stimulating factor; GM-CSF; uPA;
KW vascular endothelial growth factor; urokinase plasminogen activator;
KW dermal ulcer; wound.
XX
XX Homo sapiens.
XX WO200149309-A2.
XX
XX 12-JUL-2001.
XX
XX 21-DEC-2000; 2000WO-IB001935.
XX
XX 29-DEC-1999; 99GB-00030768.
XX (PFIZ ) PFIZER LTD.
XX (PFIZ ) PFIZER INC.
XX
XX Type IV collagenase cDNA product.
XX hypertrophic scars; keloids; intervertebral disc disease; ds.
XX Homo sapiens.
XX US4923818-A.
XX 08-MAY-1990.
XX 15-MAY-1989; 89US-00352069.
XX 15-MAY-1989; 89US-00352069.
XX (UNIV ) UNIV WASHINGTON.
XX Goldberg GL, Eisen AZ;
XX WPI; 1990-245482/32.
XX N-PSDB; AAQ05620.
XX Recombinant human type IV collagenase - used in treatment of hypertrophic
PT scars, keloids and intervertebral disc disease.
XX Claim 3; Fig 9; 23pp; English.
XX cDNA clone enables production of type IV collagenase, useful in
CC catalysing cleavage of extracellular matrix macromolecules, and in
CC treatment of hypertrophic scars, keloids and intervertebral disc disease.
CC (Updated on 25-MAR-2003 to correct PA field.)
XX
XX Sequence 660 AA;
QY Query Match 100.0%; Score 54; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 2.4;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
DB 1 PRCGNPDVA 9
100 PRCGNPDVA 108
RESULT 49
AAE10431
ID AAE10431 standard; protein; 660 AA.
XX
AC AAE10431;
XX
XX 10-DEC-2001 (first entry)
XX
DE Human matrix metalloproteinase-2 (MMP-2) protein.
XX
KW Human; matrix metalloproteinase; MMP-2; hair growth; antisense therapy;
KW endopeptidase; skin cell; breast cancer; hair follicle; chromosome 11q22.
XX
XX Homo sapiens.
XX
XX Key Location/Qualifiers
XX Peptide 1..27
XX Protein /label= Signal_peptide
XX 28..660
XX Domain /label= Mature_MMP_2_protein
XX 100..106
XX Domain /label= Cysteine_switch_domain
XX 171..195
XX /note= "Zinc and calcium binding domain"
XX
XX WO200166766-A2.
XX
XX 13-SEP-2001.
XX
XX 06-MAR-2001; 2001WO-US007167.
XX
XX 06-MAR-2000; 2000US-0187196P.
XX
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PA	(DARW-) DARWIN MOLECULAR CORP.	PP	28-AUG-2001; 2001WO-EP009899.
PA	(SCHA/) SCHATZMAN R.	XX	
XX		PR	07-SEP-2000; 2000DE-01044325.
PI	Fajardo M, Wang K, Smith R, Moss P;	XX	
XX		PA	(MERE) MERCK PATENT GMBH.
XX		XX	
DR	WPI; 2001-582276/65.	PI	Jonczyk A, Diefenbach B, Groth U, Zischinsky G;
XX		XX	
PT	Novel isolated matrix metalloproteinase-25 nucleic acid molecule and	DR	WPI; 2002-329868/36.
PT	proteins encoded by them whose inhibition is useful for modulation of	XX	
PT	hair growth in mammals.	XX	
XX		PT	New matrix metalloprotease-2 derivative peptides, are alpha-v-beta-3
PS	Example 2; Fig 3; 119pp; English.	PT	integrin receptor inhibitors useful e.g. for treating thrombosis, cardiac
XX		XX	infarction, tumors, osteoporosis, inflammation or infections.
XX		XX	
CC	The present sequence is human matrix metalloproteinase (MMP)-2 protein	XX	Disclosure; Page 11; 35pp; German.
CC	used in the exemplification of the invention. MMP-25 DNA is located on	PS	
CC	chromosome 11q22. Matrix metalloproteinases are a family of zinc	XX	
CC	dependent endopeptidases that function extracellularly to degrade	CC	The invention relates to peptides (ABB79414-ABB79426) derived from the C-
CC	proteins typically found in the extracellular matrix. MMP-25 is expressed	CC	terminal fragment PEX of matrix metalloprotease-2 (MMP-2). Matrix MMP-2
CC	in skin cells of mammals, particularly in breast cells and hair	CC	derivatives of formula X-Y-Z (I) and their salts and solvates are
CC	follicles. MMP-25 DNA is useful for identifying a nucleic acid molecule	CC	described. X = H, 1-10C alkanoyl or peptide fragment consisting of 1-20
CC	encoding all or part of MMP by hybridising MMP-25 to a nucleic acid	CC	naturally occurring amino acid residues; Y = peptide fragment selected
CC	sample and identifying a sequence that hybridises in the nucleic acid	CC	from the sequence region 466-660 of human Pro-MMP-2; and Z = OH, NH ₂ , NH
CC	sample. The identification step involves performing polymerase chain	CC	-1-10C alkyl N(1-10C alkyl) 2 or peptide fragment consisting of 1-20
CC	reaction (PCR) to amplify the hybridising sequence. MMP-25 antibody is	CC	naturally occurring amino acid residues. Primary amino groups are
CC	useful for identifying type 25 MMP. MMP-25 protein inhibitors may be used	CC	optionally protected conventionally. The peptides and MMP-2 derivatives
CC	to modulate hair growth and breast cancer in a mammal	CC	are used for combating diseases involving interaction of ligands
XX		CC	(specifically MMP-2) with the alpha-v-beta-3 integrin receptor,
SQ	Sequence 660 AA;	CC	especially pathological processes supported or propagated by
		CC	angiogenesis, thrombosis, cardiac infarction, coronary heart disease,
		CC	arteriosclerosis, tumours, osteoporosis, fibrosis, inflammation,
		CC	infections, psoriasis or wound healing deficiency. More generally the
		CC	peptides and MMP-2 derivatives are useful in human and veterinary
		CC	medicine for the treatment and/or prophylaxis of thrombosis, myocardial
		CC	infarction, apoplexy, angina pectoris, tumour diseases, osteolytic
		CC	diseases (e.g. osteoporosis or hypercalcaemia), pathological angiogenic
		CC	diseases (e.g. inflammation), ophthalmological diseases (e.g. diabetic
		CC	retinopathy, macular degeneration, myopia, ocular histoplasmosis or
		CC	rubeotic glaucoma), rheumatoid arthritis, osteoarthritis, ulcerative
		CC	colitis, Crohn's disease, atherosclerosis, psoriasis, restenosis after
		CC	angioplasty, viral, bacterial or fungal infections, acute renal failure
		CC	or wound healing deficiency; as antimicrobial/antiseptic agents in
		CC	operations involving biomaterials, implants, catheters or cardiac
		CC	pacemakers); or as diagnostic agents or reagents. The present sequence is
		CC	that of the human MMP-2 protein
XX		XX	
SQ	Sequence 660 AA;	SQ	
			Query Match 100.0%; Score 54; DB 5; Length 660;
			Best Local Similarity 100.0%; Pred. No. 2.4;
			Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY	1 PRCGNPDVA 9	QY	1 PRCGNPDVA 9
Db	100 PRCGNPDVA 108	Db	100 PRCGNPDVA 108
RESULT 50			
ABB79413			
ID	ABB79413 standard; protein; 660 AA.		
XX			
XX	ABB79413;		
AC			
XX			
DT	08-JUL-2002 (first entry)		
DE	Human matrix metalloproteinase 2 protein.		
XX			
KW	Human; matrix metalloproteinase-2; MMP-2; enzyme; thrombolytic;		
KW	anticoagulant; cardiant; antiarteriosclerotic; cytostatic; osteopathic;		
KW	antiinflammatory; antibacterial; virucide; fungicide; antipsoriatic;		
KW	vulnary; cerebroprotective; antianginal; ophthalmological;		
KW	antirheumatic; antiarthritic; antitumor; vasotropic; nephrotropic;		
KW	alpha-v-beta-3 integrin receptor; thrombosis; tumour; osteoporosis;		
KW	infection; veterinary medicine; rheumatoid arthritis; Crohn's disease;		
KW	antimicrobial; antiseptic.		
XX			
OS	Homo sapiens.		
XX			
XX			
FH	Key		
FT	Location/Qualifiers		
FT	466..660		
FT	/label= PEX		
FT	Binding-site		
FT	489..497		
FT	/label= alpha-v-beta-3_integrin_receptor_binding_site		
FT	Binding-site		
FT	570..585		
FT	/label= alpha-v-beta-3_integrin_receptor_binding_site		
FT	Binding-site		
FT	588..597		
FT	/label= alpha-v-beta-3_integrin_receptor_binding_site		
XX			
XX	WO200220566-A2.		
PN			
XX			
PD	14-MAR-2002.		
XX			


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XX PN WO200210217-A2.
XX PD 07-FEB-2002.
XX PF 01-AUG-2001; 2001WO-US024031.
XX PR 02-AUG-2000; 2000US-0222599P.
XX PR 11-AUG-2000; 2000US-0224360P.
XX PR 11-APR-2001; 2001US-0282850P.
XX PA (UYJO ) UNIV JOHNS HOPKINS.
XX PI St Croix B, Kinzler KW, Vogelstein B;
XX DR WPI; 2002-291856/33.
XX DR N-PSDB; ABL92092.
XX PT An isolated molecule comprising an antibody variable region which
XX PT specifically binds to an extracellular domain of a tumor endothelial
XX PT marker (TEM) protein, useful for inhibiting tumor growth.
XX PS Claim 54; Page 166-168; 331pp; English.
XX CC The invention relates to an isolated molecule comprising an antibody
XX CC variable region which specifically binds to an extracellular domain of a
XX CC tumor endothelial marker (TEM) protein selected from ABB90732, ABB90740,
XX CC ABB90749, ABB90750 and ABB90769. The antibodies which bind to TEM
XX CC proteins have cytostatic, immunostimulant and antiangiogenic activity.
XX CC They are useful for inhibiting tumor growth, neovascularization in subjects
XX CC bearing a vascularized tumor, polycystic kidney disease, diabetic
XX CC retinopathy, rheumatoid arthritis and psoriasis. Human, mouse and rat TEM
XX CC genes and the encoded proteins (ABL92075-ABL92141 and ABB90721-ABB90789)
XX CC are disclosed, as are marker oligonucleotide sequences: tumor
XX CC endothelial markers (TEM) ABL91996-ABL92041 and ABL92143-ABL92191; normal
XX CC endothelial markers (NEM) ABL92042-ABL92074; and pan-endothelial markers
XX CC (PEM) ABL91903-ABL91995
XX SQ Sequence 660 AA;
Query Match 100.0%; Score 54; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 2.4;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108
RESULT 52
AAU84348
ID AAU84348 standard; protein; 660 AA.
AC AAU84348;
XX 08-MAY-2002 (first entry)
XX DE Protein MMP2 differentially expressed in breast cancer tissue.
XX KW Human; diagnosis of breast cancer; endothelial cancer; breast tumour;
XX KW MAI; mitotic activity index; cytostatic.
XX OS Homo sapiens.
XX PN WO200210436-A2.
XX PD 07-FEB-2002.
XX PF 27-JUL-2001; 2001WO-US023642.
XX PR 28-JUL-2000; 2000US-0222093P.
XX PA (BGHM ) BRIGHAM & WOMENS HOSPITAL INC.
PA (BAAK/) BAAK J.
XX PI Baak J, Mutter GL;
XX DR WPI; 2002-180084/23.
XX DR N-PSDB; ABK35568.
XX PT Diagnosing breast cancer comprises determining expression of nucleic acid
XX PT molecules or expression products that are differentially expressed in
XX PT normal and malignant tissue.
XX PS Claim 37; Page 185-187; 219pp; English.
XX CC The present invention relates to a method for diagnosing breast cancer in
XX CC a subject suspected of having endometrial cancer. The method comprises
XX CC determining the expression of a set of human genes or expression products
XX CC in an endometrial sample suspected of being cancerous. The human genes of
XX CC the invention are differentially expressed in breast tumours
XX CC characterised as high or low MAI (mitotic activity index). These sets of
XX CC genes can be used to discriminate between high and low MAI breast
XX CC tumours. The invention also provides DNA and protein microarrays for
XX CC analysing the expression of the human genes and their protein products.
XX CC The methods and arrays are useful for the diagnosis and prognosis of
XX CC endometrial cancer, selecting and monitoring treatment regimes, and
XX CC identification of compounds useful for the treatment of endometrial
XX CC cancer. AAU84311-AAU84361 represent the human proteins of the invention
XX CC that are differentially expressed in breast cancer tissue
XX SQ Sequence 660 AA;
Query Match 100.0%; Score 54; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 2.4;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108
RESULT 53
ABU54445
ID ABU54445 standard; protein; 660 AA.
XX AC ABU54445;
XX DT 12-MAR-2003 (first entry)
XX DE Human tumour endothelial marker TEM 7.
XX KW Human; endothelial cell; EC; tumour endothelial cell; TEM; NEM;
XX KW Tumour endothelial marker; normal endothelial marker; PEM;
XX KW pan-endothelial marker; polycystic kidney disease; psoriasis;
XX KW diabetic retinopathy; rheumatoid arthritis; tumour angiogenesis;
XX KW neovascularization; immune response; cytostatic; antidiabetic;
XX KW ophthalmological; antirheumatic; antiarthritic; antipsoriatic.
XX OS Homo sapiens.
XX PN WO200283874-A2.
XX PD 24-OCT-2002.
XX PF 10-APR-2002; 2002WO-US008253.
XX PR 11-APR-2001; 2001US-0282850P.
XX PR 06-FEB-2002; 2002US-0354262P.
XX PA (UYJO ) UNIV JOHNS HOPKINS.
XX PI Carson-Walter B, St Croix B, Kinzler KW, Vogelstein B;
XX DR WPI; 2003-093016/08.
XX DR N-PSDB; ABX72017.
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XX PT New purified human transmembrane protein, designated as tumor endothelial
PT marker (TEM) 3, useful for detecting, diagnosing or treating tumors,
PT polycystic kidney disease, diabetic retinopathy, rheumatoid arthritis or
PT psoriasis.
XX PS Disclosure; Page 173-174; 374pp; English.
XX CC The present invention relates to a novel method for the isolation of
CC endothelial cells (ECs), and the identification of genes expressed in
CC normal and tumor ECs. Tumor endothelial marker (TEM), normal
CC endothelial marker (NEM), and pan-endothelial marker (PEM) genes are
CC identified in human ECs. The human EC marker proteins and the
CC polynucleotide sequences encoding them are useful for detecting,
CC diagnosing or treating tumors as well as polycystic kidney disease,
CC diabetic retinopathy, rheumatoid arthritis, and psoriasis. They are also
CC useful for inhibiting neoangiogenesis or tumour angiogenesis, for
CC inducing an immune response to tumour endothelial cells in a patient, or
CC for identifying candidate drugs for treating tumours. The present
CC sequence represents a human TEM or NEM protein of the invention
XX SQ Sequence 660 AA;
Query Match 100.0%; Score 54; DB 6; Length 660;
Best Local Similarity 100.0%; Pred. No. 2.4;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108
|||||
RESULT 54
ABP97136
ID ABP97136 standard; protein; 660 AA.
XX AC ABP97136;
XX DT 24-JUN-2003 (first entry)
XX DE Human matrix metalloproteinase 2 protein SEQ ID NO:14.
XX KW Human; matrix metalloproteinase; MMP; anticancer; wound healing;
KW matrix metalloproteinase inhibitor; antitumor; antiangiogenic; cardiant;
KW vascular endothelial growth factor inhibitor; VEGF inhibitor; cycostatic;
KW vulnary; cerebroprotective; antidiabetic; ophthalmological; tumour;
KW dermatological; metastatic; non-metastatic; vascularised; heart disease;
KW non-vascularised; surgical incision; chronic wound; stroke; angiogenesis;
KW macular degeneration; diabetic retinopathy; cleavage region.
XX OS Homo sapiens.
XX PN WO2003018748-A2.
XX PD 06-MAR-2003.
XX PF 15-AUG-2002; 2002WO-US026319.
XX PR 16-AUG-2001; 2001US-0312726P.
XX PR 21-DEC-2001; 2001US-00032376.
XX PR 21-MAY-2002; 2002US-00153185.
XX (KIMB) KIMBERLY-CLARK WORLDWIDE INC.
XX PA Quirk S, Weart IF;
XX PI WPI; 2003-381408/36.
XX DR
XX PT Anti-angiogenic composition comprising peptide inhibitor of matrix
PT metalloproteinase, useful for decreasing the expression of vascular
PT endothelial growth factor and treating cancers and tissue injuries.
XX Example 1; Page 43-44; 103pp; English.

XX CC The present invention describes an anti-angiogenic composition (I) for
CC inhibiting expression of vascular endothelial growth factor (VEGF). (I)
CC comprises an effective amount of a peptide inhibitor of matrix
CC metalloproteinase (MMP), where the peptide can inhibit the expression of
CC VEGF. (I) has cytostatic, vulnary, cardiant, cerebroprotective,
CC antidiabetic, ophthalmological and dermatological activities. (I) can be
CC used for inhibiting expression of VEGF, and so can be used for inhibiting
CC growth of tumours and diminishing tumours size. The tumour can be
CC metastatic, non-metastatic, vascularised, non-vascularised, hard or soft.
CC (I) is also useful for treating injuries including wounds, surgical
CC incisions, chronic wounds, heart diseases and stroke. (I) is also useful
CC for treating disorders characterised by excessive angiogenesis e.g.
CC macular degeneration and diabetic retinopathy. The present sequence
CC represents the human MMP-2 protein, which is used in the exemplification
XX of the present invention
XX SQ Sequence 660 AA;
Query Match 100.0%; Score 54; DB 6; Length 660;
Best Local Similarity 100.0%; Pred. No. 2.4;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108
|||||
RESULT 55
AAO16608
ID AAO16608 standard; protein; 660 AA.
XX AC AAO16608;
XX DT 08-MAY-2003 (first entry)
XX DE Human matrix metalloproteinase 2 (MMP2) gelatinase protein.
XX KW Human; enzyme; crystalline polypeptide; matrix metalloproteinase 9; MMP9;
KW gelatinase; metalloproteinase mediated disease; drug design; arthritis;
KW three-dimensional structure; MMP9 inhibitor; tumour growth;
KW cancer metastasis; osteoarthritis; atherosclerosis; restenosis;
KW periodontitis; multiple sclerosis; glomerulonephritis; MMP9 modulator;
KW graft-versus-host disease; non-insulin dependent diabetes; MMP2;
KW matrix metalloproteinase 2.
XX OS Homo sapiens.
XX PN WO2003002729-A1.
XX PD 09-JAN-2003.
XX PF 24-JUN-2002; 2002WO-SR001266.
XX PR 27-JUN-2001; 2001SE-00002298.
XX (ASTR) ASTRAZENECA AB.
XX PI Jepson H, Minshull C, Pauptit R, Rowsell S;
XX DR WPI; 2003-201502/19.
XX PT Novel crystalline form of a polypeptide corresponding to the catalytic
PT domain of matrix metalloproteinase 9 protein, useful for selecting or
PT designing chemical modulators which are used for treating diabetes,
PT cancer, arthritis.
XX PS Disclosure; Fig 7; 227pp; English.
XX CC The invention comprises a crystalline form of a polypeptide corresponding
CC to the catalytic domain of matrix metalloproteinase 9 (MMP9) protein - a
CC gelatinase. The crystalline polypeptide of the invention is useful for
CC treating a metalloproteinase mediated disease or condition in a warm-

CC blooded animal. The crystalline polypeptide is also useful for
 CC determining the three-dimensional structure of the MMP9 catalytic domain
 CC to high resolution. The three-dimensional structure of the MMP9 catalytic
 CC domain is useful for rational drug design, and the atomic coordinates of
 CC the catalytic domain of MMP9 are useful for selecting or designing
 CC chemical modulators (preferably inhibitors) of MMP9. The crystalline
 CC polypeptide of the invention is useful in the treatment of a
 CC metalloproteinase mediated disease or condition, such as: tumour growth;
 CC metastasis in cancer; arthritis; osteoarthritis; atherosclerosis;
 CC restenosis; periodontitis; multiple sclerosis; glomerulonephritis; graft-
 CC versus-host disease; and non-insulin dependent diabetes. The present
 CC amino acid sequence represents a human matrix metalloproteinase 2 (MMP2)
 CC protein
 CC
 XX SQ Sequence 660 AA;

Query Match 100.0%; Score 54; DB 6; Length 660;
 Best Local Similarity 100.0%; Pred. No. 2.4;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
 | | | | | | | | |
 Db 100 PRCGNPDVA 108

RESULT 56

ABG76322
 ID ABG76322 standard; protein; 660 AA.

XX AC ABG76322;

XX DT 10-MAY-2003 (first entry)

XX DE Human matrix metalloproteinase-2 (MMP-2).

XX KW Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2;
 KW cleavage region; proenzyme form; cellular proliferation; fibroblast;
 KW keratinocyte; healthy skin development; wound healing; scarring;
 KW skin tone; wrinkle; anti-aging; vulnerary.

XX OS Homo sapiens.

XX PN W02003016520-A1.

XX PD 27-FEB-2003.

XX PF 15-AUG-2002; 2002WO-US026198.

XX PR 16-AUG-2001; 2001US-0312726P.

XX PR 21-DEC-2001; 2001US-00032376.

XX PR 21-MAY-2002; 2002US-00153185.

XX PA (KIMB) KIMBERLY-CLARK WORLDWIDE INC.

XX PI Quirk S, Malik S, Villanueva JM;

XX DR WPI; 2003-289980/28.

XX PT Novel peptide inhibitor of proteinase activity of matrix
 PT metalloproteinases, e.g. matrix metalloproteinase-2, useful for
 PT stimulating cellular proliferation of fibroblasts or keratinocytes.

XX PS Example 1; Page 41-42; 120pp; English.

XX CC The present invention relates to peptide inhibitors of metalloproteinases
 CC (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have
 CC peptide sequences related to the cleavage regions of the proenzyme forms
 CC of the MMPs. The peptide inhibitors are useful for stimulating cellular
 CC proliferation of fibroblasts or keratinocytes, promoting healthy skin
 CC development, treating wounds, preventing scarring, improving skin tone,
 CC reducing wrinkling and for stimulating the development of smooth, healthy
 CC skin. The peptide inhibitors are useful as anti-aging and wound healing
 CC compounds. The present sequence represents human MMP-2

XX SQ Sequence 660 AA;

Query Match 100.0%; Score 54; DB 6; Length 660;
 Best Local Similarity 100.0%; Pred. No. 2.4;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
 | | | | | | | | |
 Db 100 PRCGNPDVA 108

RESULT 57

ADD18578
 ID ADD18578 standard; protein; 660 AA.

XX AC ADD18578;

XX DT 15-JAN-2004 (first entry)

XX DE Human disease related protein SeqID9.

XX KW human; disease state; cytostatic; antiinflammatory; ophthalmological;
 KW antiarteriosclerotic; vulnerary; gene therapy;
 KW hypoxia-regulated condition; tumorigenesis; angiogenesis; apoptosis;
 KW inflammation; erythropoiesis; glycolysis; gluconeogenesis;
 KW glucose transportation; catecholamine synthesis; iron transport;
 KW nitric oxide synthesis; cancer; ischaemic condition; reperfusion injury;
 KW retinopathy; neonatal stress; pre-eclampsia; atherosclerosis;
 KW inflammatory condition; wound healing.

XX OS Homo sapiens.

XX PN W02003018621-A2.

XX PD 06-MAR-2003.

XX PF 23-AUG-2002; 2002WO-GB003892.

XX PR 23-AUG-2001; 2001GB-00020558.

XX PR 05-OCT-2001; 2001GB-00024037.

XX PA (OXFO-) OXFORD BIOMEDICA UK LTD.

XX PI Kingsman SM, White J, Ward NR, Harris RA, Naylor S, Mundy CR;

XX DR WPI; 2003-290046/28.

XX DR N-PSDB; ADD18579.

XX PT New substantially purified polypeptide, useful for diagnosing or treating
 PT a hypoxia-regulated condition, such as cancer, ischemia, reperfusion
 PT injury, retinopathy, pre-eclampsia, atherosclerosis, inflammation, or
 PT wound healing.

XX PS Claim 25; SEQ ID NO 9; 424pp; English.

XX CC This invention relates to novel human genes and gene product which are
 CC implicated in certain disease states. Compounds which modulate the
 CC proteins of the invention may have cytostatic, antiinflammatory, The
 CC ophthalmological, antiarteriosclerotic or vulnerary activities. The
 CC sequences of the invention may be useful for gene therapy. The invention
 CC may be useful for diagnosing or treating a hypoxia-regulated condition,
 CC such as tumorigenesis, angiogenesis, apoptosis, inflammation,
 CC erythropoiesis, or the biological response to hypoxia conditions
 CC including processes such as glycolysis, gluconeogenesis, glucose
 CC transportation, catecholamine synthesis, iron transport or nitric oxide
 CC synthesis. The disease includes cancer, ischaemic conditions, reperfusion
 CC injury, retinopathy, neonatal stress, pre-eclampsia, atherosclerosis,
 CC inflammatory conditions or wound healing. The present sequence is that of
 CC a disease related protein of the invention.

XX SQ Sequence 660 AA;

Query Match 100.0%; Score 54; DB 7; Length 660;
Best Local Similarity 100.0%; Pred. No. 2.4; Mismatches 0; Indels 0; Gaps 0;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108
|||||

RESULT 58
ADP65244
ID ADP65244 standard; protein; 660 AA.
XX
AC ADP65244;
XX
DT 12-AUG-2004 (first entry)
XX
DE Human matrix metalloproteinase 2 preproprotein, gelatinase A, 72kd type.
XX
KW autoimmune disease; arthritis; gene expression analysis;
KW rheumatoid arthritis; collagen-induced; immunosuppressive; antirheumatic;
KW antiarthritic; osteopathic; antigout; antiinflammatory; dermatological;
KW immunomodulator; lupus; ankylosing spondylitis; Fibrositis;
KW fibromyalgia; osteoarthritis; gout; juvenile rheumatoid arthritis;
KW immune; human.
XX
OS Homo sapiens.
XX
PN WO2003072827-A1.
XX
PD 04-SEP-2003.
XX
PF 31-OCT-2002; 2002WO-US035433.
XX
PR 31-OCT-2001; 2001US-0336220P.
XX
PA (CHIL-) CHILDREN'S HOSPITAL MEDICAL CENT.
XX
PI Hirsch R, Thorton SL;
XX
DR WPI; 2003-712740/67.
DR GENBANK; NP_004521.
XX
XX
PT Diagnosing and analyzing autoimmune disease using gene expression
PT profiles and microarray technology, useful for diagnosing and treating
PT rheumatoid arthritis, lupus, fibrositis, osteoarthritis, fibromyalgia and
PT gout.
XX
PS Disclosure; Page; 56pp; English.
XX
CC The invention relates to a novel method for diagnosing and analysing
CC autoimmune disease or arthritis. The method comprises obtaining a
CC patient sample containing mRNA, analysing gene expression using the mRNA
CC that results in a gene expression signature of the mRNA, and using that
CC gene expression signature to diagnose or analyse the autoimmune disease
CC or arthritis in the patient, where gene expression of at least 60% of
CC the genes correlates with that of the gene signature. The invention
CC further comprises: a treatment of rheumatoid arthritis; identification of
CC genes for targeting in the treatment of rheumatoid arthritis in a mammal
CC other than a mouse; diagnosis of rheumatoid arthritis in a mammal; an
CC array or gene chip, specific for rheumatoid arthritis; diagnosis or
CC analyses of autoimmune disease or rheumatoid arthritis; screening the
CC efficacy of a candidate drug in vitro for the treatment of collagen-
CC induced arthritis; and reducing the symptoms associated with collagen-
CC induced arthritis. The compositions of the invention have the following
CC activities: immunosuppressive, antirheumatic, antiarthritic, osteopathic,
CC antigout, antiinflammatory, dermatological, and immunomodulatory. The
CC methods and compositions of the present invention are useful for
CC diagnosing and treating autoimmune disease or arthritis, such as
CC rheumatoid arthritis, lupus, ankylosing spondylitis, fibrositis,
CC fibromyalgia, osteoarthritis, gout, juvenile rheumatoid arthritis, and an
CC immune disease caused by an infectious agent. This sequence represents a
CC protein sequence relating to the genes used in the analysis and treatment

CC of autoimmune diseases or arthritis. Note: This sequence is not shown
CC in the specification. It has been supplied in an electronic format from
CC WIPO.
XX
SQ Sequence 660 AA;
Query Match 100.0%; Score 54; DB 7; Length 660;
Best Local Similarity 100.0%; Pred. No. 2.4; Mismatches 0; Indels 0; Gaps 0;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108
|||||

RESULT 59
ADN07697
ID ADN07697 standard; protein; 660 AA.
XX
AC ADN07697;
XX
DT 01-JUL-2004 (first entry)
XX
DE Human matrix metalloproteinase 2 protein.
XX
KW Protease; stem cell; bone marrow failure disorder; aplastic anaemia;
KW myeloproliferative disorder; multiple myeloma; gene therapy; human;
KW matrix metalloproteinase; MMP; enzyme.
XX
OS Homo sapiens.
XX
PN US2004071687-A1.
XX
PD 15-APR-2004.
XX
PF 28-MAY-2003; 2003US-00447315.
XX
PR 28-MAY-2002; 2002US-0383658P.
XX
PA (RAFI/) RAFII S.
PA (HEIS/) HEISSIG B.
PA (HATT/) HATTORI K.
XX
PI Rafii S, Heissig B, Hattori K;
XX
DR WPI; 2004-328523/30.
DR N-PSDB; ADN07698.
DR GENBANK; 11342666.
XX
PT Recruiting adult stem cells in an animal for treating aplastic anemia or
PT multiple myeloma by administering a protease or its activator so that the
PT stem cells can proliferate, self-renew, differentiate or mobilize to a
PT target site.
XX
PS Disclosure; SEQ ID NO 3; 77pp; English.
XX
CC The present invention relates to the use of proteases to recruit stem
CC cells from the niches they normally occupy. The invention is useful for
CC recruiting adult stem cells for treating bone marrow failure disorder
CC such as aplastic anaemia and myeloproliferative disorder such as multiple
CC myeloma. The invention is also useful in gene therapy. The present
CC sequence is human matrix metalloproteinase (MMP) protein.
XX
SQ Sequence 660 AA;
Query Match 100.0%; Score 54; DB 8; Length 660;
Best Local Similarity 100.0%; Pred. No. 2.4; Mismatches 0; Indels 0; Gaps 0;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108
|||||

RESULT 60
ADQ17097
ID ADQ17097 standard; protein; 660 AA.
KW AC ADQ17097;
XX AC
XX 23-SEP-2004 (first entry)
XX DT
XX DE Human matrix metalloproteinase-2 (MMP2) protein.
XX KW
XX KW Fibronectin; healthy skin; wrinkle; wound; vulnery; dermatological;
KW human; matrix metalloproteinase; MMP.
XX OS
XX OS Homo sapiens.
XX FN US2004127421-A1.
XX PD 01-JUL-2004.
XX 30-DEC-2002; 2002US-00335207.
XX PF 30-DEC-2002; 2002US-00335207.
XX PR (MALI/) MALIK S.
XX PA (QUIR/) QUIRK S.
XX PA
XX FI Malik S, Quirk S;
XX XX
XX WPI; 2004-506456/48.
XX DR
XX XX
XX Composition used for preventing and treating wrinkles and treating wounds
PT comprises peptide having sequence related to matrix metalloproteinase
PT proenzyme.
XX XX
XX Example 1; SEQ ID NO 14; 60pp; English.
XX XX
XX The present invention provides peptides and compositions containing such
CC peptides that are useful as agents to maintain healthy skin and to
CC promote the condition of the skin. The invention is useful for increasing
CC the amount of fibronectin in tissue. The invention is also useful for
CC encouraging the maintenance and development of healthy skin, preventing
CC and treating wrinkles and for treating wounds. The invention acts as
CC vulnery and dermatological agents. The present sequence is human matrix
CC metalloproteinase-2 (MMP2) protein. This sequence is used in the
CC exemplification of the invention.
XX XX
SQ Sequence 660 AA;
Query Match 100.0%; Score 54; DB 8; Length 660;
Best Local Similarity 100.0%; Pred. No. 2.4; Mismatches 0; Indels 0; Gaps 0;
Matches 9; Conservative 0;
Qy 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108
|||||
RESULT 61
ADV90301
ID ADV90301 standard; protein; 660 AA.
XX AC
XX AC ADV90301;
XX DT
XX DT 10-MAR-2005 (first entry)
XX DE
XX DE Protease-hydrolysed polypeptide #78.
XX KW
XX KW Protease; immune disorder; inflammation; musculoskeletal disease;
KW dermatological disease; gastrointestinal disease; endocrine disease;
KW metabolic disorder; cancer; hematological disease;
KW cardiovascular disease; neurological disease; neurodegenerative disease;
KW growth disorder; respiratory disease; genitourinary disease;

KW synecological disorder; nutritional disorder; infection; cytostatic;
KW gastrointestinal-gen.; antiinflammatory; antiasthmatic; analgesic;
KW antiarthritic; osteopathic; antidiabetic; nephrotropic;
KW cardiovascular-gen.; immunosuppressive; respiratory-gen.; antipsoriatic;
XX antiallergic; dermatological; enzyme; hydrolysis.
XX OS
XX OS Homo sapiens.
XX PN WO2004113522-A1.
XX PD 29-DEC-2004.
XX PF 18-JUN-2004; 2004WO-EP051173.
XX PR 18-JUN-2003; 2003EP-00013819.
XX PR 10-NOV-2003; 2003EP-00025851.
XX PR 11-NOV-2003; 2003EP-00025871.
XX PR 11-FEB-2004; 2004EP-00003058.
XX PA (DIRE-) DIREVO BIOTECH AG.
XX FI Haupts U, Koltermann A, Scheidig A, Voetsmeier C, Kettling U;
XX WPI; 2005-057985/06.
XX DR
XX XX
XX Proteases with defined specificity for a target substrate useful for
PT treating a specific disease related to the target substrate, such as
PT cancer, asthma, diabetes, inflammatory disorders and psoriasis.
XX XX
XX Claim 43; SEQ ID NO 131; 250pp; English.
XX XX
XX The invention relates to the use of a protease with defined specificity
CC for a target substrate for preparing a medicament for the treatment of a
CC specific disease related to the target substrate. The invention also
CC relates to a pharmaceutical or diagnostic composition comprising one or
CC more enzymes in the use cited, optionally comprising pharmaceutically or
CC diagnostically acceptable carriers, excipients and/or auxiliary agents, a
CC method for cleaving a target substrate in vivo or in vitro comprising
CC contacting the target substrate with a protease as cited in the use
CC mentioned, and a method for treatment of a disease in a patient connected
CC with a specific target substrate comprising administering to the patient
CC a protease with defined specificity for the specific target substrate.
CC The protease hydrolyzes the target substrate and eliminates or reduces
CC one or more biological activities, physico-chemical properties or
CC pharmacological properties of the target protein and/or activates or
CC increases one or more biological activities, physico-chemical properties
CC or pharmacological properties of the target protein, and/or adds one or
CC more biological activities, physico-chemical properties or
CC administered to treat immune disorders, inflammatory disorders,
CC musculoskeletal diseases, dermatological diseases, gastrointestinal
CC diseases, endocrine diseases, metabolic disorder, cancers, hematological
CC diseases, cardiovascular diseases, neurological diseases,
CC neurodegenerative diseases, growth disorders, respiratory diseases,
CC genitourinary diseases, gynecological disorders, nutritional disorders
CC and infections. This sequence represents a polypeptide hydrolysed by a
CC protease used in the scope of the invention.
XX XX
SQ Sequence 660 AA;
Query Match 100.0%; Score 54; DB 9; Length 660;
Best Local Similarity 100.0%; Pred. No. 2.4;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108
|||||
RESULT 62
ADV68478
ID ADV68478 standard; protein; 660 AA.
XX XX

AC ADV68478;
 XX 10-MAR-2005 (first entry)
 DT Human matrix metalloproteinase-2 protein SeqID14.
 DE
 XX cell growth; pharmaceutical; cyostatic; metalloprotease 1 inhibitor;
 KW metalloprotease 2 inhibitor; metalloprotease 3 inhibitor;
 KW metalloprotease 4 inhibitor; metalloprotease 5 inhibitor;
 KW metalloprotease 6 inhibitor; metalloprotease 7 inhibitor;
 KW metalloprotease 8 inhibitor; metalloprotease 9 inhibitor;
 KW metalloprotease 10 inhibitor; metalloprotease 11 inhibitor;
 KW metalloprotease 12 inhibitor; metalloprotease 13 inhibitor;
 KW metalloprotease inhibitor; bone tumor; sarcoma.
 XX
 OS Homo sapiens.
 XX
 XX US2004259802-A1.
 PN
 XX 23-DEC-2004.
 PD
 XX 20-JUN-2003; 2003US-00601059.
 XX
 XX 20-JUN-2003; 2003US-00601059.
 XX
 XX (YANG/) YANG S.
 PA (QUIR/) QUIRK S.
 PA
 XX Yang S, Quirk S;
 PI
 XX WPI; 2005-047374/05.
 DR
 XX
 XX A composition for decreasing and inhibiting the growth of chondrosarcoma
 PT cells, useful for treating chondrosarcomas and bone cancer, comprises a
 PT matrix metalloproteinase inhibitor.
 PT
 XX
 XX Example 1; SEQ ID NO 14; 50pp; English.
 PS
 XX This invention relates to a novel composition for inhibiting growth of
 CC chondrosarcoma cells comprising an amount of a peptide and a
 CC pharmaceutical carrier. The invention may be useful for the production of
 CC compounds with a cytostatic activity acting as metalloprotease 1
 CC inhibitors, metalloprotease 2 inhibitors, metalloprotease 3 inhibitors,
 CC metalloprotease 4 inhibitors, metalloprotease 5 inhibitors,
 CC metalloprotease 6 inhibitors, metalloprotease 7 inhibitors,
 CC metalloprotease 8 inhibitors, metalloprotease 9 inhibitors,
 CC metalloprotease 10 inhibitors, metalloprotease 11 inhibitors or
 CC metalloprotease 12 inhibitors. The composition is useful for decreasing and
 CC inhibiting the growth of chondrosarcoma cells which in turn inhibits
 CC growth of a bone tumor or diminishes a size of a bone tumor, useful for
 CC treating chondrosarcomas and bone cancers. The present sequence is that
 CC of a human matrix metalloproteinase which may be used during the
 CC development of a composition of the invention.
 XX
 XX Sequence 660 AA;
 SQ
 Query Match 100.0%; Score 54; DB 9; Length 660;
 Best Local Similarity 100.0%; Pred. No. 2.4;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRGCPDVA 9
 Db 100 PRGCPDVA 108
 |||||
 RESULT 63
 ADE62857
 ID ADE62857 standard; protein; 662 AA.
 XX
 AC ADE62857;
 XX
 XX 29-JAN-2004 (first entry)
 DT

XX Rat Protein P33436, SEQ ID NO 8791.
 DE
 XX Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury;
 KW chronic constriction injury; CCI; spared nerve injury; SNI; Chung.
 KW
 XX Rattus norvegicus.
 OS
 XX WO2003016475-A2.
 PN
 XX 27-FEB-2003.
 PD
 XX 14-AUG-2002; 2002WO-US025765.
 PF
 XX 14-AUG-2001; 2001US-0312147P.
 PR 01-NOV-2001; 2001US-0346382P.
 PR 26-NOV-2001; 2001US-0333347P.
 XX
 XX (GEHO) GEN HOSPITAL CORP.
 PA (FARB) BAYER AG.
 PA
 XX Woolf C, D'urso D, Befort K, Costigan M;
 PI WPI; 2003-368312/36.
 DR GENBANK; P33436.
 DR
 XX New composition comprising two or more isolated polypeptides, useful for
 PT preparing a medicament for treating pain in an animal.
 PT
 XX Claim 1; Page; 1017pp; English.
 PS
 XX The invention discloses a composition comprising two or more isolated rat
 CC or human polynucleotides or a polynucleotide which represents a fragment,
 CC derivative or allelic variation of the nucleic acid sequence. Also
 CC claimed are a vector comprising the novel polynucleotide, a host cell
 CC comprising the vector, a method for identifying a nucleotide sequence
 CC which is differentially regulated in an animal subjected to pain and a
 CC kit to perform the method, an array, a method for identifying an agent
 CC that increases or decreases the expression of the polynucleotide sequence
 CC that is differentially expressed in neuronal tissue of a first animal
 CC subjected to pain, a method for identifying a compound which regulates
 CC the expression of a polynucleotide sequence which is differentially
 CC expressed in an animal subjected to pain, a method for identifying a
 CC compound that regulates the activity of one or more of the
 CC polynucleotides, a method for producing a pharmaceutical composition, a
 CC method for identifying a compound or small molecule that regulates the
 CC activity in an animal of one or more of the polypeptides given in the
 CC specification, a method for identifying a compound useful in treating
 CC pain and a pharmaceutical composition comprising the one or more
 CC polypeptides or their antibodies. The polynucleotide or the compound that
 CC modulates its activity is useful for preparing a medicament for treating
 CC pain (e.g. spinal segmental nerve injury (Chung), chronic constriction
 CC injury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene
 CC therapy). The sequence presented is a rat protein (shown in Table 2 of
 CC the specification) which is differentially expressed during pain. Note:
 CC the sequence data for this patent did not form part of the printed
 CC specification, but was obtained in electronic form directly from WIPO at
 CC ftp.wipo.int/pub/published_pct_sequences.
 XX
 XX Sequence 662 AA;
 SQ
 Query Match 100.0%; Score 54; DB 7; Length 662;
 Best Local Similarity 100.0%; Pred. No. 2.4;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRGCPDVA 9
 Db 100 PRGCPDVA 108
 |||||
 RESULT 64
 ADD46270
 ID ADD46270 standard; protein; 662 AA.

XX AC ADD46270;
XX DT 29-JAN-2004 (first entry)
XX DE Rat Protein P33436, SEQ ID NO 11945.
XX KW Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury;
XX KW chronic constriction injury; CCI; spared nerve injury; SNI; Chung.
XX OS Rattus norvegicus.
XX PN W02003016475-A2.
XX PD 27-FEB-2003.
XX PP 14-AUG-2002; 2002WO-US025765.
XX PR 14-AUG-2001; 2001US-0312147P.
XX PR 01-NOV-2001; 2001US-0346382P.
XX PR 26-NOV-2001; 2001US-0333347P.
XX PA (GEHO) GEN HOSPITAL CORP.
XX PA (FARB) BAYER AG.
XX PI Woolf C, D'urso D, Befort K, Costigan M;
XX DR WPI; 2003-268312/26.
XX DR GENBANK; P33436.
XX PT New composition comprising two or more isolated polypeptides, useful for
XX PT preparing a medicament for treating pain in an animal.
XX PS Claim 1; Page; 1017pp; English.

CC The invention discloses a composition comprising two or more isolated rat
CC or human polynucleotides or a polynucleotide which represents a fragment,
CC derivative or allelic variation of the nucleic acid sequence. Also
CC claimed are a vector comprising the novel polynucleotide, a host cell
CC comprising the vector, a method for identifying a nucleotide sequence
CC which is differentially regulated in an animal subjected to pain and a
CC kit to perform the method, an array, a method for identifying an agent
CC that increases or decreases the expression of the polynucleotide sequence
CC that is differentially expressed in neuronal tissue of a first animal
CC subjected to pain, a method for identifying a compound which regulates
CC the expression of a polynucleotide sequence which is differentially
CC expressed in an animal subjected to pain, a method for identifying a
CC compound that regulates the activity of one or more of the
CC polynucleotides, a method for producing a pharmaceutical composition, a
CC method for identifying a compound or small molecule that regulates the
CC activity in an animal of one or more of the polypeptides given in the
CC specification, a method for identifying a compound useful in treating
CC pain and a pharmaceutical composition comprising the one or more
CC polypeptides or their antibodies. The polynucleotide or the compound that
CC modulates its activity is useful for preparing a medicament for treating
CC pain (e.g. spinal segmental nerve injury (Chung), chronic constriction
CC injury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene
CC therapy). The sequence presented is a rat protein (shown in Table 2 of
CC the specification) which is differentially expressed during pain. Note:
CC The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic form directly from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.

XX SQ Sequence 662 AA;

Query Match 100.0%; Score 54; DB 7; Length 662;
Best Local Similarity 100.0%; Pred. No. 2.4;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRGNGPDVA 9
Db 100 PRGNGPDVA 108
|||||

RESULT 65
AAW41111
ID AAW41111 standard; protein; 663 AA.
XX AC AAW41111;
XX DT 08-JUN-1998 (first entry)
XX DE Chicken matrix metalloproteinase-2.
XX KW Matrix metalloproteinase-2; MMP-2; chMMP-2; chicken; Angiogenesis;
XX KW inhibitor; antagonist; integrin alpha-v beta-3; vitronectin receptor;
XX KW rheumatoid arthritis; tumour; metastasis; diabetic retinopathy;
XX KW macular degeneration; restenosis; therapy.
XX OS Gallus sp.
XX Key Location/Qualifiers
XX FT Peptide 1..26
XX FT /label= Sig_peptide
XX PN W09745137-A1.
XX PD 04-DEC-1997.
XX PF 30-MAY-1997; 97WO-US009158.
XX PR 31-MAY-1996; 96US-0015869P.
XX PR 31-MAY-1996; 96US-0018733P.
XX PA (SCRI) SCRIPPS RES INST.
XX PI Brooks P, Cheresh DA;
XX DR WPI; 1998-032334/03.
XX DR N-PSDB; AAV03995.
XX PT Packaging material containing polypeptide antagonist of alphav, beta3
XX PT integrin - used for inhibition of angiogenesis, and for treating tumours,
XX PT inflammation, eye diseases etc.
XX PS Disclosure; Page 163-167; 234pp; English.
XX CC This protein sequence comprises chicken matrix metalloproteinase-2 (chMMP
XX -2). The invention relates to the discovery that angiogenesis is mediated
XX by the specific vitronectin receptor alpha-v beta-3, and that inhibition
XX of alpha-v beta-3 function inhibits angiogenesis. Claimed antagonists of
XX alpha-v beta-3 include C-terminal fragments (see AAW41083-94) of human or
XX chicken MMP-2. An MMP-2 fragment can be obtained by recombinant DNA
XX methods, such as PCR amplification of the chMMP-2 coding region, cloning
XX into e.g. pEX-3X, and expression in E. coli as a fusion protein with
XX glutathione-S-transferases. The antagonists can be used to inhibit
XX angiogenesis in inflamed tissue (for treatment of arthritis or
XX rheumatoid arthritis), in solid tumours or metastases (particularly to
XX induce regression or inhibit tumour growth), and in ocular disorders such
XX as diabetic retinopathy and macular degeneration, as well as to treat
XX restenosis (all claimed)
XX SQ Sequence 663 AA;
Query Match 100.0%; Score 54; DB 2; Length 663;
Best Local Similarity 100.0%; Pred. No. 2.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 PRGNGPDVA 9
Db 97 PRGNGPDVA 105
|||||

RESULT 66
ADT05976
ID ADT05976 standard; protein; 663 AA.

XX AC ADT05976;
 XX 30-DEC-2004 (first entry)
 XX Chicken matrix metalloprotease (MMP-2) version #1, SEQ ID NO:30.
 XX
 XX Angiogenesis inhibitor; integrin alpha-v beta-3 antagonist;
 KW vitronectin receptor antagonist; neovascularisation; cancer; tumour;
 KW inflammation; rheumatoid arthritis; retina; diabetic retinopathy;
 KW restenosis; smooth muscle cell migration; angioplasty; antiangiogenic;
 KW cytosolic; antiinflammatory; antiarthritic; antirheumatic;
 KW ophthalmological; antidiabetic; vasotropic; muscular-gen.;
 KW peptidomimetic; matrix metalloprotease 2; MMP-2; progelatinase; chicken;
 KW enzyme.
 XX
 XX Gallus gallus.
 OS Synthetic.
 OS
 XX Key Location/Qualifiers
 FT Peptide 1..26
 FT Protein 27..663
 FT /label= Signal_peptide
 FT Protein 27..663
 FT /label= Mature_MMP-2
 FT Misc-difference 202..205
 FT /note= "This section is Asp-Ser-His-Phe in the chicken
 FT MMP-2 shown in figure 7"
 FT Region 436..663
 FT /note= "Corresponds to residues 410-637 of the mature
 FT protein (see SEQ ID NO:23)"
 FT Domain 471..663
 FT /label= Hemopexin_domain
 FT /note= "Corresponds to residues 445-637 of the mature
 FT protein (see also SEQ ID NO:24)"
 FT Region 471..578
 FT /note= "Corresponds to residues 445-552 of the mature
 FT protein (see SEQ ID NO:26)"
 FT Region 471..544
 FT /note= "Corresponds to residues 445-518 of the mature
 FT protein (see SEQ ID NO:25)"
 FT Region 542..663
 FT /note= "Corresponds to residues 516-637 of the mature
 FT protein (see SEQ ID NO:27)"
 FT Region 575..663
 FT /note= "Corresponds to residues 549-637 of the mature
 FT protein (see SEQ ID NO:28)"
 FT
 PN WO2004087057-A2.
 XX
 XX 14-OCT-2004.
 XX
 XX 26-MAR-2004; 2004WO-US009321.
 XX
 XX 28-MAR-2003; 2003US-00402212.
 XX
 XX (SCRI) SCRIPPS RES INST.
 XX
 XX Brooks PC, Cheres DA;
 XX WPI; 2004-737508/72.
 DR N-PSDB; ADT05975.
 XX
 XX Administration of composition comprising organic peptidomimetic alpha-v
 FT beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue
 FT angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
 XX
 PS Example 2; SEQ ID NO 30; 184pp; English.
 XX
 CC The invention relates to a method of inhibiting angiogenesis in a tissue
 CC by the administration of a composition comprising an organic
 CC peptidomimetic antagonist of integrin alpha-v beta-3 (vitronectin
 CC receptor). The integrin alpha-v beta-3 antagonist and compositions
 CC containing it are useful for inhibiting angiogenesis in a variety of

CC medical conditions. The antagonist may be used to induce the regression
 CC of solid tumours or solid tumour metastases; to inhibit the growth of
 CC solid tumours undergoing neovascularisation; to treat inflamed tissue in
 CC which neovascularisation is occurring (e.g., in rheumatoid arthritis); to
 CC treat neovascularisation in retinal tissue (e.g., in diabetic
 CC retinopathy); to treat restenosis in a tissue by inhibiting smooth muscle
 CC cell migration (such as that which occurs following angioplasty); and to
 CC reduce the blood supply to a tissue required to support new growth of the
 CC tissue. The present sequence represents chicken matrix metalloprotease 2
 CC (MMP-2, gelatinase) used in an example of the invention. Note: The
 CC present sequence differs between residues 202-205 compared to the
 CC sequence also described as chicken MMP-2 shown in figure 7A-7C
 CC (ADT05995).
 XX
 XX Sequence 663 AA;
 SQ
 Query Match 100.0%; Score 54; DB 8; Length 663;
 Best Local Similarity 100.0%; Pred. No. 2.5;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 PRCGNPDVA 9
 DB 97 PRCGNPDVA 105
 |||||
 |||||
 RESULT 67
 ADT05995
 ID ADT05995 standard; protein; 663 AA.
 AC ADT05995;
 XX
 XX 30-DEC-2004 (first entry)
 DT
 DE Chicken matrix metalloprotease (MMP-2) version #2.
 XX
 KW Angiogenesis inhibitor; integrin alpha-v beta-3 antagonist;
 KW vitronectin receptor antagonist; neovascularisation; cancer; tumour;
 KW inflammation; rheumatoid arthritis; retina; diabetic retinopathy;
 KW restenosis; smooth muscle cell migration; angioplasty; antiangiogenic;
 KW cytosolic; antiinflammatory; antiarthritic; antirheumatic;
 KW ophthalmological; antidiabetic; vasotropic; muscular-gen.;
 KW peptidomimetic; matrix metalloprotease 2; MMP-2; progelatinase; chicken;
 KW enzyme.
 XX
 XX Gallus gallus.
 OS
 XX Key Location/Qualifiers
 FT Peptide 1..26
 FT Protein 27..663
 FT /label= Signal_peptide
 FT Protein 27..663
 FT /label= Mature_MMP-2
 FT Misc-difference 202..205
 FT /note= "This section is Ser-His-Phe-Asp in the chicken
 FT MMP-2 shown in SEQ ID NO:30"
 FT Misc-difference 202
 FT /note= "Encoded by TCC"
 FT Misc-difference 203
 FT /note= "Encoded by CAT"
 FT Misc-difference 204
 FT /note= "Encoded by TTT"
 FT Misc-difference 205
 FT /note= "Encoded by GAT"
 FT Region 436..663
 FT /note= "Corresponds to residues 410-637 of the mature
 FT protein (see SEQ ID NO:23)"
 FT Domain 471..663
 FT /label= Hemopexin_domain
 FT /note= "Corresponds to residues 445-637 of the mature
 FT protein (see also SEQ ID NO:24)"
 FT Region 471..578
 FT /note= "Corresponds to residues 445-552 of the mature
 FT protein (see SEQ ID NO:26)"
 FT Region 471..544
 FT /note= "Corresponds to residues 445-518 of the mature
 FT protein (see SEQ ID NO:25)"
 FT Region 542..663
 FT /note= "Corresponds to residues 516-637 of the mature
 FT protein (see SEQ ID NO:27)"
 FT Region 575..663
 FT /note= "Corresponds to residues 549-637 of the mature
 FT protein (see SEQ ID NO:28)"
 FT
 PN WO2004087057-A2.
 XX
 XX 14-OCT-2004.
 XX
 XX 26-MAR-2004; 2004WO-US009321.
 XX
 XX 28-MAR-2003; 2003US-00402212.
 XX
 XX (SCRI) SCRIPPS RES INST.
 XX
 XX Brooks PC, Cheres DA;
 XX WPI; 2004-737508/72.
 DR N-PSDB; ADT05975.
 XX
 XX Administration of composition comprising organic peptidomimetic alpha-v
 FT beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue
 FT angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
 XX
 PS Example 2; SEQ ID NO 30; 184pp; English.
 XX
 CC The invention relates to a method of inhibiting angiogenesis in a tissue
 CC by the administration of a composition comprising an organic
 CC peptidomimetic antagonist of integrin alpha-v beta-3 (vitronectin
 CC receptor). The integrin alpha-v beta-3 antagonist and compositions
 CC containing it are useful for inhibiting angiogenesis in a variety of

PT /note= "Corresponds to residues 445-518 of the mature
FT protein (see SEQ ID NO:25)"
FT 542..663
FT /note= "Corresponds to residues 516-637 of the mature
FT protein (see SEQ ID NO:27)"
FT 575..663
FT /note= "Corresponds to residues 549-637 of the mature
FT protein (see SEQ ID NO:28)"
XX WO2004087057-A2.
XX 14-OCT-2004.
XX 26-MAR-2004; 2004WO-US009321.
XX 28-MAR-2003; 2003US-00402212.
XX (SCRI) SCRIPPS RES INST.
XX Brooks PC, Cheres DA;
XX WPI: 2004-737508/72.
XX N-PSDB; ADT05994.
XX Administration of composition comprising organic peptidomimetic alpha-v
FT beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue
PT angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
XX Example 2; Fig 7A-C; 184pp; English.
XX The invention relates to a method of inhibiting angiogenesis in a tissue
CC by the administration of a composition comprising an organic
CC peptidomimetic antagonist of integrin alpha-v beta-3 (vitronectin
CC receptor). The integrin alpha-v beta-3 antagonist and compositions
CC containing it are useful for inhibiting angiogenesis in a variety of
CC medical conditions. The antagonist may be used to induce the regression
CC of solid tumours or solid tumour metastases; to inhibit the growth of
CC solid tumours undergoing neovascularisation; to treat inflamed tissue in
CC which neovascularisation is occurring (e.g., in rheumatoid arthritis); to
CC treat neovascularisation in retinal tissue (e.g., in diabetic
CC retinopathy); to treat stenosis in a tissue by inhibiting smooth muscle
CC cell migration (such as that which occurs following angioplasty); and to
CC reduce the blood supply to a tissue required to support new growth of the
CC tissue. The present sequence represents chicken matrix metalloprotease 2
CC (MMP-2, gelatinase) used in an example of the invention. Note: The
CC present sequence differs between residues 202-205 compared to the
CC sequence also described as chicken MMP-2 shown in the sequence listing
CC (ADT05976)
XX SQ Sequence 663 AA;
Query Match 100.0%; Score 54; DB 8; Length 663;
Best Local Similarity 100.0%; Pred. No. 2.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 PRCGNPDVA 9
Db |||||||
97 PRCGNPDVA 105
RESULT 68
ADP60554
ID ADF60554 standard; protein; 708 AA.
XX ADF60554;
XX 12-FEB-2004 (first entry)
DT Human contig polypeptide sequence SEQ ID NO:2921.
XX biological activity; genetic engineering; hybridisation probe; oligomer;
XX primer; chromosome mapping; gene mapping; recombinant protein production;
XX human.

XX Homo sapiens.
OS WO2003080795-A2.
PN 02-OCT-2003.
PD 09-AUG-2002; 2002WO-US025485.
XX 09-AUG-2001; 2001US-0311261P.
XX (HYSE-) HYSEQ INC.
XX Tang YT, Yang Y, Wang Z, Weng G, Ma Y;
XX WPI: 2003-876918/81.
XX N-PSDB; ADF60102.
XX New polynucleotides, useful as hybridization probes, oligomers or
PT primers, for chromosome or gene mapping, for the recombinant production
PT of proteins, and for generating antisense DNA or RNA.
XX Example 3; SEQ ID NO 2921; 571pp; English.
XX The present invention describes isolated polynucleotide sequences (I),
CC which encode polypeptides (II) with biological activity. Also described:
CC (1) a vector comprising (I); (2) an expression vector comprising (I); (3)
CC a host cell genetically engineered to comprise (I) which is operatively
CC associated with a regulatory sequence that modulates expression of (I) in
CC the host cell; (4) a polypeptide (II) encoded by (I); (5) a composition
CC comprising the polypeptide of (4) and a carrier; (6) an antibody directed
CC against the polypeptide of (4); (7) detecting (I) or the polypeptide of
CC (4) in a sample; (8) identifying a compound that binds to the polypeptide
CC of (4); (9) producing the polypeptide of (4); and (10) a collection of
CC polynucleotides comprising at least one of the polynucleotide sequences
CC (I). The polynucleotides (I) can be used as hybridisation probes,
CC oligomers or primers, for chromosome or gene mapping, for the recombinant
CC production of proteins, and for generating antisense DNA or RNA. The
CC present sequence represents a human contig polypeptide sequence, which is
CC used in an example from the present invention.
XX SQ Sequence 708 AA;
Query Match 100.0%; Score 54; DB 7; Length 708;
Best Local Similarity 100.0%; Pred. No. 2.6;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 PRCGNPDVA 9
Db |||||||
148 PRCGNPDVA 156
RESULT 69
AEA20970
ID AEA20970 standard; protein; 708 AA.
XX AEA20970;
XX 11-AUG-2005 (first entry)
DT Novel human polypeptide SEQ ID NO 1664.
XX vulnary; CNS-gen.; gene therapy; diagnostic; forensic; mapping;
XX DNA purification; protein purification; osteoarthritis; antiarthritic;
XX osteopathic; musculoskeletal disease; osteoporosis; endocrine disease;
XX periodontal disease; antiinflammatory; mouth disease; burns; injury;
XX peripheral neuropathy; Alzheimers disease; neuroprotective; nootropic;
XX degeneration; parkinsons disease; antiparkinsonian; neurological disease;
XX cerebrovascular ischemia; cerebroprotective; vasotropic;
XX cardiovascular disease; autoimmune disease; immunosuppressive;
XX immune disorder; viral infection; virucide; infection; cancer;
XX cytosstatic; neoplasm.

OS Homo sapiens.
XX WO2005049806-A2.
PN
XX
PD
XX
XX 02-JUN-2005.
XX
XX 11-MAR-2004; 2004WO-US007412.
XX
XX 14-MAR-2003; 2003US-00389559.
PR
XX
XX (NUVE-) NUVELO INC.
PA
XX
XX Tang TY, Wang J, Wang ZW, Zhang J, Ren F, Zhou P, Ma Y;
PI Ghosh M, Xue A, Asundi V, Zhao Q, Wang D, Goodrich R, Chen R;
PI Wehrman T, Weng G, Boyle B;
XX
XX WPI; 2005-417730/42.
DR
XX
XX New polynucleotide encoding a polypeptide with biological activity,
PT useful for treating a disease or disorder, e.g. osteoarthritis, burns,
PT CNS and peripheral disease, stroke, autoimmune disorders, viral
PT infection, or cancer.
XX
XX Example 3; SEQ ID NO 1664; 500pp; English.
PS
XX
XX The invention describes a new isolated polynucleotide (I) encoding a
CC polypeptide with biological activity comprising: a nucleotide sequence of
CC SEQ ID NOS: 1-567 (fully defined); a nucleotide sequence that hybridizes
CC to the sequence of (i) under stringent hybridization conditions; or a
CC nucleotide sequence having greater than 9% sequence identity with the
CC sequence of (i). Also described are: a(n) (expression)vector comprising
CC (i); a host cell genetically engineered to comprise (i) operatively,
CC associated with a regulatory sequence that modulates expression of the
CC polynucleotide in the host cell; an isolated polypeptide comprising a
CC sequence of SEQ ID NOS: 568-1134 (fully defined), where the polypeptide
CC is: a polypeptide encoded by (i); or a polypeptide encoded by a
CC polynucleotide hybridizing under stringent conditions with any one of SEQ
CC ID NOS: 1-567; a composition comprising the polypeptide of (3) and a
CC carrier; an antibody directed against the polypeptide of (3); a method
CC for detecting (i) in a sample; a method for detecting the polypeptide of
CC (3) in a sample; a method for identifying a compound that binds to the
CC polypeptide of (3); a method for producing the polypeptide of (3); and a
CC collection of polynucleotides, where the collection comprising of at
CC least one of SEQ ID NOS: 1-567. (i) is a polynucleotide comprising any of
CC the sequences of SEQ ID NOS: 1-567 encoding a polypeptide with biological
CC activity, which comprises any of the amino acid sequence of SEQ ID NOS:
CC 568-1134. All sequences are fully defined in the specification. The
CC sequences and methods are useful in diagnostics, forensic, and gene
CC mapping, in identifying of mutations responsible for genetic disorders or
CC other traits, in assessing biodiversity, and for producing many other
CC types of data and products dependent on DNA and amino acid sequences. The
CC composition and method are useful for treating a disease or disorder,
CC e.g. osteoporosis, osteoarthritis, periodontal disease, burns, CNS and
CC peripheral disease, Alzheimer's disease, Parkinson's disease, stroke,
CC autoimmune disorders, viral infection, or cancer. This is the amino acid
CC sequence of a novel polypeptide of the invention.
XX
SQ Sequence 708 AA;
Query Match 100.0%; Score 54; DB 9; Length 708;
Best Local Similarity 100.0%; Pred. No. 2.6;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 PRGCPNDVA 9
Db 148 PRGCPNDVA 156
RESULT 70
ID ABG23999
XX ABG23999 standard; protein; 1330 AA.
XX
AC ABG23999;

XX 18-FEB-2002 (first entry)
XX
XX Novel human diagnostic protein #23990.
DE
XX
XX Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW food supplement; medical imaging; diagnostic; genetic disorder.
XX
XX Homo sapiens.
XX
XX WO200175067-A2.
PN
XX
XX 11-OCT-2001.
PD
XX
XX 30-MAR-2001; 2001WO-US008631.
PF
XX
XX 31-MAR-2000; 2000US-00540217.
PR
XX
XX 23-AUG-2000; 2000US-00649167.
PR
XX
XX (HYSE-) HYSEQ INC.
PA
XX
XX Drmanac RT, Liu C, Tang YT;
PI
XX
XX WPI; 2001-639362/73.
DR
XX
XX N-PSDB; AAS88186.
DR
XX
XX New isolated polynucleotide and encoded polypeptides, useful in
PT diagnostics, forensics, gene mapping, identification of mutations
PT responsible for genetic disorders or other traits and to assess
PT biodiversity.
XX
XX Claim 20; SEQ ID NO 54358; 103pp; English.
PS
XX
XX The invention relates to isolated polynucleotide (I) and polypeptide (II)
CC sequences. (I) is useful as hybridisation probes, polymerase chain
CC reaction (PCR) primers, oligomers, and for chromosome and gene mapping,
CC and in recombinant production of (II). The polynucleotides are also used
CC in diagnostics as expressed sequence tags for identifying expressed
CC genes. (I) is useful in gene therapy techniques to restore normal
CC activity of (II) or to treat disease states involving (II). (II) is
CC useful for generating antibodies against it, detecting or quantitating a
CC polypeptide in tissue, as molecular weight markers and as a food
CC supplement. (II) and its binding partners are useful in medical imaging
CC of sites expressing (II). (I) and (II) are useful for treating disorders
CC involving aberrant protein expression or biological activity. The
CC polypeptide and polynucleotide sequences have applications in
CC diagnostics, forensics, gene mapping, identification of mutations
CC responsible for genetic disorders or other traits to assess biodiversity
CC and to produce other types of data and products dependent on DNA and
CC amino acid sequences. ABG0010-ABG30377 represent novel human diagnostic
CC amino acid sequences of the invention. Note: The sequence data for this
CC patent did not appear in the printed specification, but was obtained in
CC electronic format directly from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 1330 AA;
Query Match 100.0%; Score 54; DB 4; Length 1330;
Best Local Similarity 100.0%; Pred. No. 4.9;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 PRGCPNDVA 9
Db 318 PRGCPNDVA 326

Search completed: February 21, 2006, 18:13:21
Job time : 91.2807 secs

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OM protein - protein search, using sw model

Run on: February 21, 2006, 08:00:29 ; Search time 20.6053 Seconds
(without alignments)
36.111 Million cell updates/sec

Title: US-10-601-059-12

Perfect score: 54

Sequence: 1 PRGCPDVA 9

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

Issued Patents AA:*

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- 2: /cgn2_6/ptodata/1/iaa/6 COMB.pap:*
- 3: /cgn2_6/ptodata/1/iaa/H COMB.pap:*
- 4: /cgn2_6/ptodata/1/iaa/PCUS COMB.pap:*
- 5: /cgn2_6/ptodata/1/iaa/RE COMB.pap:*
- 6: /cgn2_6/ptodata/1/iaa/backfiles1.pap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	54	100.0	9	2	US-10-153-185-12
2	54	100.0	19	2	US-10-153-185-11
3	54	100.0	43	2	US-10-153-185-15
4	54	100.0	44	2	US-10-153-185-2
5	54	100.0	631	2	US-08-448-489-17
6	54	100.0	631	2	US-09-689-730-17
7	54	100.0	660	2	US-08-704-711A-18
8	54	100.0	660	2	US-09-521-220-18
9	54	100.0	660	2	US-09-391-104-19
10	54	100.0	660	2	US-09-917-254-89
11	54	100.0	660	2	US-09-949-016-6512
12	54	100.0	660	2	US-09-949-016-7937
13	54	100.0	660	2	US-10-153-185-14
14	54	100.0	663	2	US-09-194-468A-30
15	47	87.0	136	2	US-09-513-999C-4639
16	45	83.3	9	2	US-09-492-543-167
17	45	83.3	9	2	US-10-172-597-167
18	45	83.3	43	2	US-10-153-185-17
19	45	83.3	54	2	US-10-153-185-9
20	45	83.3	56	2	US-10-153-185-4
21	45	83.3	135	2	US-09-513-999C-4163
22	45	83.3	264	2	US-09-009-156-6
23	45	83.3	264	2	US-09-372-154-6
24	45	83.3	264	2	US-09-950-688-6
25	45	83.3	267	2	US-08-448-489-18
26	45	83.3	267	2	US-09-391-104-27
27	45	83.3	267	2	US-09-689-730-18

28	45	83.3	271	2	US-08-896-062-2	Sequence 2, Appli
29	45	83.3	277	2	US-09-949-016-8131	Sequence 8131, Ap
30	45	83.3	469	2	US-08-704-711A-16	Sequence 16, Appl
31	45	83.3	469	2	US-08-448-489-12	Sequence 12, Appl
32	45	83.3	469	2	US-09-521-220-16	Sequence 16, Appl
33	45	83.3	469	2	US-09-391-104-23	Sequence 23, Appl
34	45	83.3	469	2	US-09-949-016-6223	Sequence 6223, Ap
35	45	83.3	469	2	US-09-689-730-12	Sequence 12, Appl
36	45	83.3	491	2	US-09-949-016-10875	Sequence 10875, A
37	41	75.9	8	2	US-08-994-689C-4	Sequence 4, Appli
38	41	75.9	8	2	US-10-153-185-1	Sequence 1, Appli
39	41	75.9	9	2	US-09-492-543-113	Sequence 113, App
40	41	75.9	9	2	US-09-492-543-134	Sequence 134, App
41	41	75.9	9	2	US-10-172-597-113	Sequence 113, App
42	41	75.9	9	2	US-10-172-597-134	Sequence 134, App
43	41	75.9	50	2	US-10-153-185-3	Sequence 3, Appli
44	41	75.9	54	2	US-10-153-185-5	Sequence 5, Appli
45	41	75.9	54	2	US-10-153-185-7	Sequence 7, Appli

ALIGNMENTS

RESULT 1
US-10-153-185-12
; Sequence 12, Application US/10153185
; Patent No. 6906036
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; PRIOR FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 12
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-12

Query Match 100.0%; Score 54; DB 2; Length 9;
Best Local Similarity 100.0%; Pred. NO. 4.6e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGCPDVA 9
Db 1 PRGCPDVA 9

RESULT 2
US-10-153-185-11
; Sequence 11, Application US/10153185
; Patent No. 6906036
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; PRIOR FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 11

; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-11

Query Match 100.0%; Score 54; DB 2; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.0078;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 1 PRCGNPDVA 9

RESULT 3

US-10-153-185-15
; Sequence 15, Application US/10153185
; Patent No. 6906036
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; CURRENT FILING DATE: 2002-08-13
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/332,376
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-15

Query Match 100.0%; Score 54; DB 2; Length 43;
Best Local Similarity 100.0%; Pred. No. 0.018;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 24 PRCGNPDVA 32

RESULT 4

US-10-153-185-2
; Sequence 2, Application US/10153185
; Patent No. 6906036
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; CURRENT FILING DATE: 2002-08-13
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/332,376
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-2

Query Match 100.0%; Score 54; DB 2; Length 44;
Best Local Similarity 100.0%; Pred. No. 0.019;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 24 PRCGNPDVA 32

RESULT 5

US-08-448-489-17
; Sequence 17, Application US/08448489
; Patent No. 6184022
; GENERAL INFORMATION:
; APPLICANT: SEIKI, Motoharu
; APPLICANT: SATO, Hiroshi
; APPLICANT: SHINAGAWA, Akira
; TITLE OF INVENTION: NOVEL METALLOPROTEINASE AND ENCODING DNA THEREFOR
; FILE REFERENCE: 55-290P
; CURRENT APPLICATION NUMBER: US/08/448,489
; CURRENT FILING DATE: 1995-06-07
; NUMBER OF SEQ ID NOS: 19
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 17
; LENGTH: 631
; TYPE: PRT
; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: Description of Unknown Organism: Known Member of
; OTHER INFORMATION: Matrix Metalloproteinase Family
US-08-448-489-17

Query Match 100.0%; Score 54; DB 2; Length 631;
Best Local Similarity 100.0%; Pred. No. 0.29;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 71 PRCGNPDVA 79

RESULT 6

US-09-689-730-17
; Sequence 17, Application US/09689730
; Patent No. 6825024
; GENERAL INFORMATION:
; APPLICANT: SEIKI, Motoharu
; APPLICANT: SATO, Hiroshi
; APPLICANT: SHINAGAWA, Akira
; TITLE OF INVENTION: NOVEL METALLOPROTEINASE AND ENCODING DNA THEREFOR
; FILE REFERENCE: 55-290P
; CURRENT APPLICATION NUMBER: US/09/689,730
; CURRENT FILING DATE: 2000-10-13
; PRIOR FILING DATE: 1995-06-07
; NUMBER OF SEQ ID NOS: 19
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 17
; LENGTH: 631
; TYPE: PRT
; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: Description of Unknown Organism: Known Member of
; OTHER INFORMATION: Matrix Metalloproteinase Family
US-09-689-730-17

Query Match 100.0%; Score 54; DB 2; Length 631;
Best Local Similarity 100.0%; Pred. No. 0.29;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 71 PRCGNPDVA 79

RESULT 7

US-08-704-711A-18

; Sequence 18, Application US/08704711A
; Patent No. 6114159
; GENERAL INFORMATION:
; APPLICANT: WILL, Horst
; APPLICANT: HINZMANN, Bernd
; TITLE OF INVENTION: DNA SEQUENCES FOR MATRIX
; TITLE OF INVENTION: METALLOPROTEASES, THEIR PRODUCTION AND USE
; NUMBER OF SEQUENCES: 22
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Foley & Lardner
; STREET: 3000 K Street, N.W., Suite 500
; CITY: Washington
; STATE: D.C.
; COUNTRY: USA
; ZIP: 20007-5109
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08704,711A
; FILING DATE: 20-NOV-1996
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: WO PCT/DE95/00357
; FILING DATE: 17-MAR-1995
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: DE 4438838.1
; FILING DATE: 21-OCT-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: DE 4409663.1
; FILING DATE: 17-MAR-1994
; ATTORNEY/AGENT INFORMATION:
; NAME: GRANADOS, Patricia D.
; REGISTRATION NUMBER: 33,683
; REFERENCE/DOCKET NUMBER: 26083/124
; TELEPHONE: (202)672-5300
; TELEFAX: (202)672-5399
; TELEX: 904136
; INFORMATION FOR SEQ ID NO: 18:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 660 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; US-08-704-711A-18

Query Match 100.0%; Score 54; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.3; Mismatches 0; Indels 0; Gaps 0;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108

RESULT 8
US-09-521-220-18
; Sequence 18, Application US/09521220
; Patent No. 6399348
; GENERAL INFORMATION:
; APPLICANT: WILL, Horst
; APPLICANT: HINZMANN, Bernd
; TITLE OF INVENTION: DNA SEQUENCES FOR MATRIX
; TITLE OF INVENTION: METALLOPROTEASES, THEIR PRODUCTION AND USE
; NUMBER OF SEQUENCES: 22
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Foley & Lardner
; STREET: 3000 K Street, N.W., Suite 500
; CITY: Washington
; STATE: D.C.

; COUNTRY: USA
; ZIP: 20007-5109
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09521,220
; FILING DATE: 08-Mar-2000
; CLASSIFICATION: <Unknown>
; 21-OCT-1994
; 17-MAR-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/704,711
; FILING DATE: <Unknown>
; APPLICATION NUMBER: DE 4438838.1
; FILING DATE: 21-OCT-1994
; APPLICATION NUMBER: DE 4409663.1
; FILING DATE: 17-MAR-1994
; ATTORNEY/AGENT INFORMATION:
; NAME: GRANADOS, Patricia D.
; REGISTRATION NUMBER: 33,683
; REFERENCE/DOCKET NUMBER: 26083/124
; TELEPHONE: (202)672-5300
; TELEFAX: (202)672-5399
; TELEX: 904136
; INFORMATION FOR SEQ ID NO: 18:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 660 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; SEQUENCE DESCRIPTION: SEQ ID NO: 18:
; US-09-521-220-18

Query Match 100.0%; Score 54; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.3; Mismatches 0; Indels 0; Gaps 0;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108

RESULT 9
US-09-391-104-19
; Sequence 19, Application US/09391104
; Patent No. 6399371
; GENERAL INFORMATION:
; APPLICANT: Abbott Laboratories
; APPLICANT: Falduto, Michael T.
; APPLICANT: Magnuson, Scott R.
; APPLICANT: Morgan, Douglas W.
; TITLE OF INVENTION: HUMAN MATRIX METALLOPROTEASE GENE.
; TITLE OF INVENTION: PROTEINS ENCODED THEREFROM AND METHODS
; TITLE OF INVENTION: OF USING SAME
; FILE REFERENCE: 6073.US.P1
; CURRENT APPLICATION NUMBER: US/09391,104
; CURRENT FILING DATE: 1999-09-07
; PRIOR APPLICATION NUMBER: US 08/814,394
; PRIOR FILING DATE: 1997-03-11
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 19
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-391-104-19

Query Match 100.0%; Score 54; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.3;

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Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRGPNPDVA 9
Db 100 PRGPNPDVA 108

RESULT 10
US-09-917-254-89
; Sequence 89, Application US/09917254
; Patent No. 6703204
; GENERAL INFORMATION:
; APPLICANT: Mutter, George
; APPLICANT: Baak, Jan
; TITLE OF INVENTION: Prognostic Classification of Breast Cancer
; FILE REFERENCE: B0801/7224(JRV)
; CURRENT APPLICATION NUMBER: US/09/917,254
; CURRENT FILING DATE: 2001-07-27
; PRIOR APPLICATION NUMBER: US 60/222,093
; PRIOR FILING DATE: 2000-07-28
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 89
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo Sapiens
US-09-917-254-89

Query Match 100.0%; Score 54; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.3;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRGPNPDVA 9
Db 100 PRGPNPDVA 108

RESULT 11
US-09-949-016-6512
; Sequence 6512, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 6512
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Human
US-09-949-016-6512

Query Match 100.0%; Score 54; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.3;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRGPNPDVA 9
Db 100 PRGPNPDVA 108

RESULT 12
US-09-949-016-7937
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; Sequence 7937, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 7937
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Human
US-09-949-016-7937

Query Match 100.0%; Score 54; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.3;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRGPNPDVA 9
Db 100 PRGPNPDVA 108

RESULT 13
US-10-153-185-14
; Sequence 14, Application US/10153185
; Patent No. 6906036
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; CURRENT FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-14

Query Match 100.0%; Score 54; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.3;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRGPNPDVA 9
Db 100 PRGPNPDVA 108

RESULT 14
US-09-194-468A-30
; Sequence 30, Application US/09194468A
; Patent No. 6500924
; GENERAL INFORMATION:
; APPLICANT: Brooks, Peter
; APPLICANT: Cheresch, David A.
; TITLE OF INVENTION: METHODS AND COMPOSITIONS USEFUL FOR INHIBITION OF
; ANGIOGENESIS
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FILE REFERENCE: MER0049S
CURRENT APPLICATION NUMBER: US/09/194,468A
CURRENT FILING DATE: 1999-03-23
PRIOR APPLICATION NUMBER: 60/018,773
PRIOR FILING DATE: 1996-05-31
PRIOR APPLICATION NUMBER: 60/015,896
PRIOR FILING DATE: 1996-05-31
PRIOR APPLICATION NUMBER: PCT/US97/09158
PRIOR FILING DATE: 1997-05-30
NUMBER OF SEQ ID NOS: 45
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 30
LENGTH: 663
TYPE: PRT
ORGANISM: Gallus gallus
US-09-194-468A-30

Query Match 100.0%; Score 54; DB 2; Length 663;
Best Local Similarity 100.0%; Pred. No. 0.31;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGNGPDVA 9
Db 97 PRGNGPDVA 105

RESULT 15

US-09-513-999C-4639
Sequence 4639, Application US/09513999C
Patent No. 6783961

GENERAL INFORMATION:
APPLICANT: Dumas Milne Edwards, J.B.

APPLICANT: Duclert, A.

APPLICANT: Giordano, J.Y.

TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.

Patent No. 6783961

FILE REFERENCE: 59,US2.REG

CURRENT APPLICATION NUMBER: US/09/513,999C

CURRENT FILING DATE: 2000-02-24

PRIOR APPLICATION NUMBER: US 60/122,487

PRIOR FILING DATE: 1999-02-26

NUMBER OF SEQ ID NOS: 36681

SOFTWARE: Patent.pm

SEQ ID NO 4639

LENGTH: 136

TYPE: PRT

ORGANISM: Homo sapiens

FEATURE:

NAME/KEY: SIGNAL

LOCATION: -29...-1

OTHER INFORMATION: score 11.4

OTHER INFORMATION: seq LCLIGCLLSHAAA/AP

FEATURE:

NAME/KEY: UNSURE

LOCATION: 16

OTHER INFORMATION: Xaa=Lys or Thr

FEATURE:

NAME/KEY: UNSURE

LOCATION: 17

OTHER INFORMATION: Xaa=Asp or Val

FEATURE:

NAME/KEY: UNSURE

LOCATION: 19

OTHER INFORMATION: Xaa=Glu or Lys

FEATURE:

NAME/KEY: UNSURE

LOCATION: 22

OTHER INFORMATION: Xaa=Leu or Val

FEATURE:

NAME/KEY: UNSURE

LOCATION: 26

OTHER INFORMATION: Xaa=Lys or Asn

FEATURE:

NAME/KEY: UNSURE
LOCATION: 27
OTHER INFORMATION: Xaa=Ile or Asn or Ser or Thr
FEATURE:
NAME/KEY: UNSURE
LOCATION: 33
OTHER INFORMATION: Xaa=Lys or Asn
FEATURE:
NAME/KEY: UNSURE
LOCATION: 34
OTHER INFORMATION: Xaa=Glu or Lys
FEATURE:
NAME/KEY: UNSURE
LOCATION: 66
OTHER INFORMATION: Xaa=Asp or Glu
FEATURE:
NAME/KEY: UNSURE
LOCATION: 67
OTHER INFORMATION: Xaa=Ala or Pro or Ser or Thr
FEATURE:
NAME/KEY: UNSURE
LOCATION: 75
OTHER INFORMATION: Xaa=Lys or Asn
FEATURE:
NAME/KEY: UNSURE
LOCATION: 80
OTHER INFORMATION: Xaa=Lys or Asn or Arg or Ser
FEATURE:
NAME/KEY: UNSURE
LOCATION: 88
OTHER INFORMATION: Xaa=Ala or Cys or Phe or Gly or His or Ile or Leu or Asn
FEATURE:
NAME/KEY: UNSURE
LOCATION: 104
OTHER INFORMATION: Xaa=Ala or Pro
US-09-513-999C-4639

Query Match 87.0%; Score 47; DB 2; Length 136;

Best Local Similarity 88.9%; Pred. No. 0.92;

Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 PRGNGPDVA 9

Db 100 PRGNGPDVA 108

Search completed: February 21, 2006, 08:02:40

Job time : 20.6053 secs

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Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGPNPDVA 9
| | | | | | | |
Db 1 PRGPNPDVA 9

RESULT 2

US-10-153-185-12
; Sequence 12, Application US/10153185
; Publication No. US20030148959A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; CURRENT FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 12
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-12

Query Match 100.0%; Score 54; DB 4; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.7e+06;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGPNPDVA 9
| | | | | | | |
Db 1 PRGPNPDVA 9

RESULT 3

US-10-219-561-12
; Sequence 12, Application US/10219561
; Publication No. US20030166567A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; APPLICANT: Villanueva, Julie M.
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.008US2
; CURRENT APPLICATION NUMBER: US/10/219,561
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 12
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-561-12

Query Match 100.0%; Score 54; DB 4; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.7e+06;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGPNPDVA 9
| | | | | | | |
Db 1 PRGPNPDVA 9

RESULT 4

US-10-032-376A-12
; Sequence 12, Application US/10032376A
; Publication No. US20040127420A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Steven
; TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing
; FILE REFERENCE: 1443.008US1
; CURRENT APPLICATION NUMBER: US/10/032,376A
; CURRENT FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 12
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-032-376A-12

Query Match 100.0%; Score 54; DB 4; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.7e+06;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGPNPDVA 9
| | | | | | | |
Db 1 PRGPNPDVA 9

RESULT 5

US-10-335-207-12
; Sequence 12, Application US/10335207
; Publication No. US20040127421A1
; GENERAL INFORMATION:
; APPLICANT: Malik, Sohail
; APPLICANT: Quirk, Stephen
; TITLE OF INVENTION: Method to Increase Fibronectin
; FILE REFERENCE: 1443.047US1
; CURRENT APPLICATION NUMBER: US/10/335,207
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 12
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-335-207-12

Query Match 100.0%; Score 54; DB 4; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.7e+06;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGPNPDVA 9
| | | | | | | |
Db 1 PRGPNPDVA 9

RESULT 6

US-10-601-059-12
; Sequence 12, Application US/10601059
; Publication No. US20040259802A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shu-Ping
; APPLICANT: Quirk, Stephen
; APPLICANT: Kimberly-Clark Worldwide, Inc.
; TITLE OF INVENTION: Anti-Chondrosarcoma Compounds
; FILE REFERENCE: 1443.064US1
; CURRENT APPLICATION NUMBER: US/10/601,059
; CURRENT FILING DATE: 2003-06-20
; PRIOR APPLICATION NUMBER: US 10/335,207
; PRIOR FILING DATE: 2002-12-30
; PRIOR APPLICATION NUMBER: US 10/219,329

; PRIOR FILING DATE: 2002-08-15
 ; PRIOR APPLICATION NUMBER: PCT/US02/26319
 ; PRIOR FILING DATE: 2002-08-15
 ; PRIOR APPLICATION NUMBER: US 10/153,185
 ; PRIOR FILING DATE: 2002-05-21
 ; PRIOR APPLICATION NUMBER: US 10/032,376
 ; PRIOR FILING DATE: 2001-12-21
 ; PRIOR APPLICATION NUMBER: US 60/312,726
 ; PRIOR FILING DATE: 2001-08-16
 ; NUMBER OF SEQ ID NOS: 21
 ; SOFTWARE: FastSEQ for Windows Version 4.0
 ; SEQ ID NO 12
 ; LENGTH: 9
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-10-601-059-12

Query Match 100.0%; Score 54; DB 5; Length 9;
 Best Local Similarity 100.0%; Pred. No. 1.7e+06;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
 Db 1 PRCGNPDVA 9

RESULT 7

US-11-031-488-12
 ; Sequence 12, Application US/11031488
 ; Publication No. US20050239710A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Quirk, Stephen
 ; APPLICANT: Malik, Sohail
 ; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
 ; FILE REFERENCE: 1443.034US1
 ; CURRENT FILING DATE: 2005-01-07
 ; PRIOR APPLICATION NUMBER: US/10/153,185
 ; PRIOR FILING DATE: 2002-05-21
 ; PRIOR APPLICATION NUMBER: US 10/032,376
 ; PRIOR FILING DATE: 2001-12-21
 ; PRIOR APPLICATION NUMBER: US 60/312,726
 ; PRIOR FILING DATE: 2001-08-16
 ; NUMBER OF SEQ ID NOS: 20
 ; SOFTWARE: FastSEQ for Windows Version 4.0
 ; SEQ ID NO 12
 ; LENGTH: 9
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-11-031-488-12

Query Match 100.0%; Score 54; DB 6; Length 9;
 Best Local Similarity 100.0%; Pred. No. 1.7e+06;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
 Db 1 PRCGNPDVA 9

RESULT 8

US-10-219-561-19
 ; Sequence 19, Application US/10219561
 ; Publication No. US20030166567A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Quirk, Stephen
 ; APPLICANT: Malik, Sohail
 ; APPLICANT: Villanueva, Julie M.
 ; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
 ; FILE REFERENCE: 1443.008US2
 ; CURRENT FILING DATE: 2002-08-15
 ; PRIOR APPLICATION NUMBER: US/10/219,561

; PRIOR FILING DATE: 2001-12-21
 ; PRIOR APPLICATION NUMBER: US 10/153,185
 ; PRIOR FILING DATE: 2002-05-21
 ; PRIOR APPLICATION NUMBER: US 60/312,726
 ; PRIOR FILING DATE: 2001-08-16
 ; NUMBER OF SEQ ID NOS: 21
 ; SOFTWARE: FastSEQ for Windows Version 4.0
 ; SEQ ID NO 19
 ; LENGTH: 14
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-10-219-561-19

Query Match 100.0%; Score 54; DB 4; Length 14;
 Best Local Similarity 100.0%; Pred. No. 0.039;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
 Db 5 PRCGNPDVA 13

RESULT 9

US-10-335-207-19
 ; Sequence 19, Application US/10335207
 ; Publication No. US20040127421A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Malik, Sohail
 ; APPLICANT: Quirk, Stephen
 ; TITLE OF INVENTION: Method to Increase Fibronectin
 ; FILE REFERENCE: 1443.047US1
 ; CURRENT APPLICATION NUMBER: US/10/335,207
 ; CURRENT FILING DATE: 2002-12-30
 ; NUMBER OF SEQ ID NOS: 21
 ; SOFTWARE: FastSEQ for Windows Version 4.0
 ; SEQ ID NO 19
 ; LENGTH: 14
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-10-335-207-19

Query Match 100.0%; Score 54; DB 4; Length 14;
 Best Local Similarity 100.0%; Pred. No. 0.039;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
 Db 5 PRCGNPDVA 13

RESULT 10

US-10-219-561-20
 ; Sequence 20, Application US/10219561
 ; Publication No. US20030166567A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Quirk, Stephen
 ; APPLICANT: Malik, Sohail
 ; APPLICANT: Villanueva, Julie M.
 ; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
 ; FILE REFERENCE: 1443.008US2
 ; CURRENT APPLICATION NUMBER: US/10/219,561
 ; CURRENT FILING DATE: 2002-08-15
 ; PRIOR APPLICATION NUMBER: US 10/032,376
 ; PRIOR FILING DATE: 2001-12-21
 ; PRIOR APPLICATION NUMBER: US 10/153,185
 ; PRIOR FILING DATE: 2002-05-21
 ; PRIOR APPLICATION NUMBER: US 60/312,726
 ; PRIOR FILING DATE: 2001-08-16
 ; NUMBER OF SEQ ID NOS: 21
 ; SOFTWARE: FastSEQ for Windows Version 4.0
 ; SEQ ID NO 20
 ; LENGTH: 17
 ; TYPE: PRT

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; ORGANISM: Homo sapiens
US-10-219-561-20

Query Match      100.0%; Score 54; DB 4; Length 17;
Best Local Similarity 100.0%; Pred. No. 0.047;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  PRCGNPDVA 9
Db      8  PRCGNPDVA 16
|||||

RESULT 11
US-10-335-207-20
; Sequence 20, Application US/10335207
; Publication No. US20040127421A1
; GENERAL INFORMATION:
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Method to Increase Fibronectin
; FILE REFERENCE: 1443.047US1
; CURRENT APPLICATION NUMBER: US/10/335,207
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 20
; LENGTH: 17
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-335-207-20

Query Match      100.0%; Score 54; DB 4; Length 17;
Best Local Similarity 100.0%; Pred. No. 0.047;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  PRCGNPDVA 9
Db      8  PRCGNPDVA 16
|||||

US-10-219-561-11
; Sequence 11, Application US/10219561
; Publication No. US20030166567A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; CURRENT FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-11

Query Match      100.0%; Score 54; DB 4; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.053;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  PRCGNPDVA 9
Db      1  PRCGNPDVA 9
|||||

RESULT 14
US-10-219-561-11
; Sequence 11, Application US/10219561
; Publication No. US20030166567A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.008US2
; CURRENT APPLICATION NUMBER: US/10/219,561
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-561-11

Query Match      100.0%; Score 54; DB 4; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.053;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  PRCGNPDVA 9
Db      1  PRCGNPDVA 9
|||||

RESULT 15
US-10-032-376A-11
; Sequence 11, Application US/10032376A
; Publication No. US20040127420A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Steven
; TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing
```

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; FILE REFERENCE: 1443.008US1
; CURRENT APPLICATION NUMBER: US/10/032,376A
; CURRENT FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-032-376A-11

Query Match      100.0%; Score 54; DB 4; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.053;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
Db 1 PRCGNPDVA 9

RESULT 16
US-10-335-207-11
; Sequence 11, Application US/10335207
; Publication No. US20040127421A1
; GENERAL INFORMATION:
; APPLICANT: Malik, Sohail
; APPLICANT: Quirk, Stephen
; TITLE OF INVENTION: Method to Increase Fibronectin
; FILE REFERENCE: 1443.047US1
; CURRENT APPLICATION NUMBER: US/10/335,207
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-335-207-11

Query Match      100.0%; Score 54; DB 4; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.053;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
Db 1 PRCGNPDVA 9

RESULT 17
US-10-601-059-11
; Sequence 11, Application US/10601059
; Publication No. US20040259802A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shu-Ping
; APPLICANT: Quirk, Stephen
; APPLICANT: Kimberly-Clark Worldwide, Inc.
; TITLE OF INVENTION: Anti-Chondrosarcoma Compounds
; FILE REFERENCE: 1443.064US1
; CURRENT APPLICATION NUMBER: US/10/601,059
; CURRENT FILING DATE: 2003-06-20
; PRIOR APPLICATION NUMBER: US 10/335,207
; PRIOR FILING DATE: 2002-12-30
; PRIOR APPLICATION NUMBER: US 10/219,329
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: PCT/US02/26319
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726

; FILE REFERENCE: 1443.008US1
; CURRENT APPLICATION NUMBER: US/10/032,376A
; CURRENT FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-032-376A-11

Query Match      100.0%; Score 54; DB 5; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.053;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
Db 1 PRCGNPDVA 9

RESULT 18
US-11-031-488-11
; Sequence 11, Application US/11031488
; Publication No. US20050239710A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/11/031,488
; CURRENT FILING DATE: 2005-01-07
; PRIOR APPLICATION NUMBER: US/10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-031-488-11

Query Match      100.0%; Score 54; DB 6; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.053;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
Db 1 PRCGNPDVA 9

RESULT 19
US-10-219-329-15
; Sequence 15, Application US/10219329
; Publication No. US20030096757A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Weart, Ilona f.
; TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds
; FILE REFERENCE: 1443.035WO1
; CURRENT APPLICATION NUMBER: US/10/219,329
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
```

US-10-219-329-15

Query Match 100.0%; Score 54; DB 4; Length 43;
Best Local Similarity 100.0%; Pred. No. 0.11;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 24 PRCGNPDVA 32

RESULT 20

US-10-153-185-15
; Sequence 15, Application US/10153185
; Publication No. US20030148959A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; CURRENT FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-15

Query Match 100.0%; Score 54; DB 4; Length 43;
Best Local Similarity 100.0%; Pred. No. 0.11;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 24 PRCGNPDVA 32

RESULT 21

US-10-219-561-15
; Sequence 15, Application US/10219561
; Publication No. US20030166567A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; APPLICANT: Villanueva, Julie M.
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.008US2
; CURRENT APPLICATION NUMBER: US/10/219,561
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-561-15

Query Match 100.0%; Score 54; DB 4; Length 43;
Best Local Similarity 100.0%; Pred. No. 0.11;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 24 PRCGNPDVA 32

RESULT 22

US-10-032-376A-15
; Sequence 15, Application US/10032376A
; Publication No. US20040127420A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Steven
; TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing
; FILE REFERENCE: 1443.008US1
; CURRENT APPLICATION NUMBER: US/10/032,376A
; CURRENT FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-032-376A-15

Query Match 100.0%; Score 54; DB 4; Length 43;
Best Local Similarity 100.0%; Pred. No. 0.11;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 24 PRCGNPDVA 32

RESULT 23

US-10-335-207-15
; Sequence 15, Application US/10335207
; Publication No. US20040127421A1
; GENERAL INFORMATION:
; APPLICANT: Malik, Sohail
; APPLICANT: Quirk, Stephen
; TITLE OF INVENTION: Method to Increase Fibronectin
; FILE REFERENCE: 1443.047US1
; CURRENT APPLICATION NUMBER: US/10/335,207
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-335-207-15

Query Match 100.0%; Score 54; DB 4; Length 43;
Best Local Similarity 100.0%; Pred. No. 0.11;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 24 PRCGNPDVA 32

RESULT 24

US-10-601-059-15
; Sequence 15, Application US/10601059
; Publication No. US20040259802A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shu-Ping
; APPLICANT: Quirk, Stephen
; APPLICANT: Kimberly-Clark Worldwide, Inc.
; TITLE OF INVENTION: Anti-Chondrosarcoma Compounds
; FILE REFERENCE: 1443.064US1
; CURRENT APPLICATION NUMBER: US/10/601,059

; CURRENT FILING DATE: 2003-06-20
; PRIOR APPLICATION NUMBER: US 10/335,207
; PRIOR FILING DATE: 2002-12-30
; PRIOR APPLICATION NUMBER: US 10/219,329
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: PCT/US02/26319
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-601-059-15

Query Match 100.0%; Score 54; DB 5; Length 43;
Best Local Similarity 100.0%; Pred. No. 0.11;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
Db 24 PRCGNPDVA 32

RESULT 25

US-11-031-488-15
; Sequence 15, Application US/11031488
; Publication No. US20050239710A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/11/031,488
; CURRENT FILING DATE: 2005-01-07
; PRIOR APPLICATION NUMBER: US/10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-031-488-15

Query Match 100.0%; Score 54; DB 6; Length 43;
Best Local Similarity 100.0%; Pred. No. 0.11;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
Db 24 PRCGNPDVA 32

RESULT 26

US-10-219-329-2
; Sequence 2, Application US/10219329
; Publication No. US20030096757A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Weart, Ilona f.
; TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds
; FILE REFERENCE: 1443.035WO1

; CURRENT APPLICATION NUMBER: US/10/219,329
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-329-2

Query Match 100.0%; Score 54; DB 4; Length 44;
Best Local Similarity 100.0%; Pred. No. 0.12;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
Db 24 PRCGNPDVA 32

RESULT 27

US-10-153-185-2
; Sequence 2, Application US/10153185
; Publication No. US20030148959A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; CURRENT FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-2

Query Match 100.0%; Score 54; DB 4; Length 44;
Best Local Similarity 100.0%; Pred. No. 0.12;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
Db 24 PRCGNPDVA 32

RESULT 28

US-10-219-561-2
; Sequence 2, Application US/10219561
; Publication No. US20030166567A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; APPLICANT: Villanueva, Julie M.
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.008US2
; CURRENT APPLICATION NUMBER: US/10/219,561
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16

```
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-561-2

Query Match      100.0%; Score 54; DB 4; Length 44;
Best Local Similarity 100.0%; Pred. No. 0.12;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  PRGPNPDVA 9
Db      24  PRGPNPDVA 32

RESULT 29
US-10-032-376A-2
; Sequence 2, Application US/10032376A
; Publication No. US20040127420A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Steven
; TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing
; FILE REFERENCE: 1443.008US1
; CURRENT APPLICATION NUMBER: US/10/032,376A
; CURRENT FILING DATE: 2001-12-21
; PRIOR FILING DATE: 2001-12-21
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-032-376A-2

Query Match      100.0%; Score 54; DB 4; Length 44;
Best Local Similarity 100.0%; Pred. No. 0.12;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  PRGPNPDVA 9
Db      24  PRGPNPDVA 32

RESULT 30
US-10-335-207-2
; Sequence 2, Application US/10335207
; Publication No. US20040127421A1
; GENERAL INFORMATION:
; APPLICANT: Malik, Sohail
; APPLICANT: Quirk, Stephen
; TITLE OF INVENTION: Method to Increase Fibronectin
; FILE REFERENCE: 1443.047US1
; CURRENT APPLICATION NUMBER: US/10/335,207
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-335-207-2

Query Match      100.0%; Score 54; DB 4; Length 44;
Best Local Similarity 100.0%; Pred. No. 0.12;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  PRGPNPDVA 9
Db      24  PRGPNPDVA 32

RESULT 31
US-10-601-059-2
; Sequence 2, Application US/10601059
; Publication No. US20040259802A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shu-Ping
; APPLICANT: Quirk, Stephen
; APPLICANT: Kimberly-Clark Worldwide, Inc.
; TITLE OF INVENTION: Anti-Chondrosarcoma Compounds
; FILE REFERENCE: 1443.064US1
; CURRENT APPLICATION NUMBER: US/10/601,059
; CURRENT FILING DATE: 2003-06-20
; PRIOR APPLICATION NUMBER: US 10/335,207
; PRIOR FILING DATE: 2002-12-30
; PRIOR APPLICATION NUMBER: US 10/219,329
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: PCT/US02/26319
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-601-059-2

Query Match      100.0%; Score 54; DB 5; Length 44;
Best Local Similarity 100.0%; Pred. No. 0.12;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  PRGPNPDVA 9
Db      24  PRGPNPDVA 32

RESULT 32
US-11-031-488-2
; Sequence 2, Application US/11031488
; Publication No. US20050239710A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/11/031,488
; CURRENT FILING DATE: 2005-01-07
; PRIOR APPLICATION NUMBER: US/10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-031-488-2

Query Match      100.0%; Score 54; DB 6; Length 44;
Best Local Similarity 100.0%; Pred. No. 0.12;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  PRGPNPDVA 9
Db      24  PRGPNPDVA 32
```


Db 24 PRCGNPDVA 32

```
RESULT 33
US-09-864-761-37964
; Sequence 37964, Application US/09864761
; Patent No. US20020048763A1
; GENERAL INFORMATION:
; APPLICANT: Penn, Sharron G.
; APPLICANT: Rank, David K.
; APPLICANT: Hanzel, David K.
; APPLICANT: Chen, Wensheng
; TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
; FILE REFERENCE: Aesmlca-X-1
; CURRENT APPLICATION NUMBER: US/09/864,761
; CURRENT FILING DATE: 2001-05-23
; PRIOR APPLICATION NUMBER: US 60/180,312
; PRIOR FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: US 60/207,456
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: US 09/632,366
; PRIOR FILING DATE: 2000-08-03
; PRIOR APPLICATION NUMBER: GB 24263.6
; PRIOR FILING DATE: 2000-10-04
; PRIOR APPLICATION NUMBER: US 60/236,359
; PRIOR FILING DATE: 2000-09-27
; PRIOR APPLICATION NUMBER: PCT/US01/00666
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00667
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00664
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00669
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00665
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00668
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00663
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00662
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00661
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00670
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: US 60/234,687
; PRIOR FILING DATE: 2000-09-21
; PRIOR APPLICATION NUMBER: US 09/608,408
; PRIOR FILING DATE: 2000-06-30
; PRIOR APPLICATION NUMBER: US 09/774,203
; PRIOR FILING DATE: 2001-01-29
; NUMBER OF SEQ ID NOS: 49117
; SOFTWARE: Annonax Sequence Listing Engine vers. 1.1
; SEQ ID NO 37964
; LENGTH: 75
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: MAP TO AC007336.2
; OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 1.1
; OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 1.5
; OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 2
; OTHER INFORMATION: EST HUMAN HIT: AI752577.1, EVALUE 1.00e-41
; OTHER INFORMATION: SWISSPROT HIT: P33436, EVALUE 1.00e-42
US-09-864-761-37964
```

```
Query Match 100.0%; Score 54; DB 3; Length 75;
Best Local Similarity 100.0%; Pred. No. 0.19;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
```

Db 49 PRCGNPDVA 57

```
RESULT 34
US-09-833-747A-11
; Sequence 11, Application US/09833747A
; Patent No. US20020151481A1
; GENERAL INFORMATION:
; APPLICANT: Weissbach, Lawrence
; TITLE OF INVENTION: MMP-2 PROPEPTIDE FOR USE AS
; FILE REFERENCE: 00786-430001
; CURRENT APPLICATION NUMBER: US/09/833,747A
; CURRENT FILING DATE: 2001-04-12
; PRIOR APPLICATION NUMBER: US 60/200,115
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 15
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 77
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: consensus sequence
; NAME/KEY: VARIANT
; LOCATION: 25
; OTHER INFORMATION: Xaa = Phe or Tyr
; NAME/KEY: VARIANT
; LOCATION: 31
; OTHER INFORMATION: Xaa = Glu or Asp
; NAME/KEY: VARIANT
; LOCATION: 32
; OTHER INFORMATION: Xaa = Ser or Asn
; NAME/KEY: VARIANT
; LOCATION: 53
; OTHER INFORMATION: Xaa = Gln or Glu
; NAME/KEY: VARIANT
; LOCATION: 66
; OTHER INFORMATION: Xaa = Arg or Lys
; OTHER INFORMATION: Xaa = Arg or Lys
US-09-833-747A-11
```

```
Query Match 100.0%; Score 54; DB 3; Length 77;
Best Local Similarity 100.0%; Pred. No. 0.2;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

Qy 1 PRCGNPDVA 9
Db 68 PRCGNPDVA 76

```
RESULT 35
US-09-833-747A-8
; Sequence 8, Application US/09833747A
; Patent No. US20020151481A1
; GENERAL INFORMATION:
; APPLICANT: Weissbach, Lawrence
; TITLE OF INVENTION: MMP-2 PROPEPTIDE FOR USE AS
; FILE REFERENCE: 00786-430001
; CURRENT APPLICATION NUMBER: US/09/833,747A
; CURRENT FILING DATE: 2001-04-12
; PRIOR APPLICATION NUMBER: US 60/200,115
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 15
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 8
; LENGTH: 79
; TYPE: PRT
; ORGANISM: Oryctolagus cuniculus
US-09-833-747A-8
```

```
Query Match 100.0%; Score 54; DB 3; Length 79;
```

Best Local Similarity 100.0%; Pred. No. 0.2; DB 3; Length 79;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
| | | | | | | |
Db 70 PRCGNPDVA 78

RESULT 36

US-09-833-747A-9
; Sequence 9, Application US/09833747A
; Patent No. US20020151481A1
; GENERAL INFORMATION:
; APPLICANT: Weissbach, Lawrence
; TITLE OF INVENTION: MMP-2 PROPEPTIDE FOR USE AS
; FILE REFERENCE: 00786-430001
; CURRENT APPLICATION NUMBER: US/09/833,747A
; CURRENT FILING DATE: 2001-04-12
; PRIOR APPLICATION NUMBER: US 60/200,115
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 15
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 9
; LENGTH: 79
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: consensus sequence
; NAME/KEY: VARIANT
; LOCATION: 4
; OTHER INFORMATION: Xaa = Ile or Val
; NAME/KEY: VARIANT
; LOCATION: 33
; OTHER INFORMATION: Xaa = Glu or Asp
; NAME/KEY: VARIANT
; LOCATION: 58
; OTHER INFORMATION: Xaa = Asp or Glu
; NAME/KEY: VARIANT
; LOCATION: 62
; OTHER INFORMATION: Xaa = Asn or Ser
US-09-833-747A-9

Query Match 100.0%; Score 54; DB 3; Length 79;
Best Local Similarity 100.0%; Pred. No. 0.2;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
| | | | | | | |
Db 70 PRCGNPDVA 78

RESULT 37

US-09-833-747A-1
; Sequence 1, Application US/09833747A
; Patent No. US20020151481A1
; GENERAL INFORMATION:
; APPLICANT: Weissbach, Lawrence
; TITLE OF INVENTION: MMP-2 PROPEPTIDE FOR USE AS
; FILE REFERENCE: 00786-430001
; CURRENT APPLICATION NUMBER: US/09/833,747A
; CURRENT FILING DATE: 2001-04-12
; PRIOR APPLICATION NUMBER: US 60/200,115
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 15
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 80
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-833-747A-1

Query Match 100.0%; Score 54; DB 3; Length 80;
Best Local Similarity 100.0%; Pred. No. 0.21; DB 3; Length 80;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
| | | | | | | |
Db 71 PRCGNPDVA 79

RESULT 38

US-09-833-747A-7
; Sequence 7, Application US/09833747A
; Patent No. US20020151481A1
; GENERAL INFORMATION:
; APPLICANT: Weissbach, Lawrence
; TITLE OF INVENTION: MMP-2 PROPEPTIDE FOR USE AS
; FILE REFERENCE: 00786-430001
; CURRENT APPLICATION NUMBER: US/09/833,747A
; CURRENT FILING DATE: 2001-04-12
; PRIOR APPLICATION NUMBER: US 60/200,115
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 15
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 7
; LENGTH: 80
; TYPE: PRT
; ORGANISM: Rattus norvegicus
US-09-833-747A-7

Query Match 100.0%; Score 54; DB 3; Length 80;
Best Local Similarity 100.0%; Pred. No. 0.21; DB 3; Length 80;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
| | | | | | | |
Db 71 PRCGNPDVA 79

RESULT 39

US-09-833-747A-10
; Sequence 10, Application US/09833747A
; Patent No. US20020151481A1
; GENERAL INFORMATION:
; APPLICANT: Weissbach, Lawrence
; TITLE OF INVENTION: MMP-2 PROPEPTIDE FOR USE AS
; FILE REFERENCE: 00786-430001
; CURRENT APPLICATION NUMBER: US/09/833,747A
; CURRENT FILING DATE: 2001-04-12
; PRIOR APPLICATION NUMBER: US 60/200,115
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 15
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 10
; LENGTH: 80
; TYPE: PRT
; ORGANISM: Gallus gallus
US-09-833-747A-10

Query Match 100.0%; Score 54; DB 3; Length 80;
Best Local Similarity 100.0%; Pred. No. 0.21; DB 3; Length 80;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
| | | | | | | |
Db 71 PRCGNPDVA 79

RESULT 40

US-09-833-747A-12
; Sequence 12, Application US/09833747A
; Patent No. US20020151481A1

```
; GENERAL INFORMATION:
; APPLICANT: Weissbach, Lawrence
; TITLE OF INVENTION: MMP-2 PROPEPTIDE FOR USE AS
; TITLE OF INVENTION: ANTIANGIOGENIC OR ANTI-TUMOR AGENT
; FILE REFERENCE: 00786-430001
; CURRENT APPLICATION NUMBER: US/09/833,747A
; PRIOR FILING DATE: 2001-04-12
; PRIOR APPLICATION NUMBER: US 60/200,115
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 15
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 12
; LENGTH: 80
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: consensus sequence
; NAME/KEY: VARIANT
; LOCATION: 13
; OTHER INFORMATION: Xaa = Ala or Ser
US-09-833-747A-12

Query Match      100.0%; Score 54; DB 3; Length 80;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 PRCGNPDVA 9
DB      71 PRCGNPDVA 79

RESULT 41
US-09-833-747A-13
; Sequence 13, Application US/09833747A
; Patent No. US20020151481A1
; GENERAL INFORMATION:
; APPLICANT: Weissbach, Lawrence
; TITLE OF INVENTION: MMP-2 PROPEPTIDE FOR USE AS
; TITLE OF INVENTION: ANTIANGIOGENIC OR ANTI-TUMOR AGENT
; FILE REFERENCE: 00786-430001
; CURRENT APPLICATION NUMBER: US/09/833,747A
; CURRENT FILING DATE: 2001-04-12
; PRIOR FILING DATE: 2000-04-27
; PRIOR APPLICATION NUMBER: US 60/200,115
; NUMBER OF SEQ ID NOS: 15
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 13
; LENGTH: 80
; TYPE: PRT
; ORGANISM: Mus musculus
US-09-833-747A-13

Query Match      100.0%; Score 54; DB 3; Length 80;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 PRCGNPDVA 9
DB      71 PRCGNPDVA 79

RESULT 42
US-09-833-747A-14
; Sequence 14, Application US/09833747A
; Patent No. US20020151481A1
; GENERAL INFORMATION:
; APPLICANT: Weissbach, Lawrence
; TITLE OF INVENTION: MMP-2 PROPEPTIDE FOR USE AS
; TITLE OF INVENTION: ANTIANGIOGENIC OR ANTI-TUMOR AGENT
; FILE REFERENCE: 00786-430001
; CURRENT APPLICATION NUMBER: US/09/833,747A
; CURRENT FILING DATE: 2001-04-12
; PRIOR APPLICATION NUMBER: US 60/200,115

; GENERAL INFORMATION:
; APPLICANT: Weissbach, Lawrence
; TITLE OF INVENTION: MMP-2 PROPEPTIDE FOR USE AS
; TITLE OF INVENTION: ANTIANGIOGENIC OR ANTI-TUMOR AGENT
; FILE REFERENCE: 00786-430001
; CURRENT APPLICATION NUMBER: US/09/833,747A
; CURRENT FILING DATE: 2001-04-12
; PRIOR APPLICATION NUMBER: US 60/200,115

; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 92
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-833-747A-2

Query Match      100.0%; Score 54; DB 3; Length 80;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 PRCGNPDVA 9
DB      71 PRCGNPDVA 79

RESULT 43
US-09-833-747A-15
; Sequence 15, Application US/09833747A
; Patent No. US20020151481A1
; GENERAL INFORMATION:
; APPLICANT: Weissbach, Lawrence
; TITLE OF INVENTION: MMP-2 PROPEPTIDE FOR USE AS
; TITLE OF INVENTION: ANTIANGIOGENIC OR ANTI-TUMOR AGENT
; FILE REFERENCE: 00786-430001
; CURRENT APPLICATION NUMBER: US/09/833,747A
; CURRENT FILING DATE: 2001-04-12
; PRIOR FILING DATE: 2000-04-27
; PRIOR APPLICATION NUMBER: US 60/200,115
; NUMBER OF SEQ ID NOS: 15
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 80
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: consensus sequence
US-09-833-747A-15

Query Match      100.0%; Score 54; DB 3; Length 80;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 PRCGNPDVA 9
DB      71 PRCGNPDVA 79

RESULT 44
US-09-833-747A-2
; Sequence 2, Application US/09833747A
; Patent No. US20020151481A1
; GENERAL INFORMATION:
; APPLICANT: Weissbach, Lawrence
; TITLE OF INVENTION: MMP-2 PROPEPTIDE FOR USE AS
; TITLE OF INVENTION: ANTIANGIOGENIC OR ANTI-TUMOR AGENT
; FILE REFERENCE: 00786-430001
; CURRENT APPLICATION NUMBER: US/09/833,747A
; CURRENT FILING DATE: 2001-04-12
; PRIOR APPLICATION NUMBER: US 60/200,115
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 15
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 92
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-833-747A-2

Query Match      100.0%; Score 54; DB 3; Length 80;
Best Local Similarity 100.0%; Pred. No. 0.24;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 83 PRCGNPDVA 91

RESULT 45
US-10-852-707-56
; Sequence 56, Application US/10852707
; Publication No. US20050142572A1
; GENERAL INFORMATION:
; APPLICANT: Macina, Roberto
; APPLICANT: Turner, Leah
; APPLICANT: Sun, Yongming
; TITLE OF INVENTION: Compositions, Splice Variants and Methods Relating to Lung Specific
; FILE OF INVENTION: Nucleic Acids and Proteins
; FILE REFERENCE: DEX-0486
; CURRENT APPLICATION NUMBER: US/10/852,707
; CURRENT FILING DATE: 2004-05-24
; PRIOR APPLICATION NUMBER: US 60/473,941
; PRIOR FILING DATE: 2003-05-22
; NUMBER OF SEQ ID NOS: 138
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 56
; LENGTH: 462
; TYPE: PRT
; ORGANISM: Homo sapien
US-10-852-707-56

Query Match 100.0%; Score 54; DB 5; Length 462;
Best Local Similarity 100.0%; Pred. No. 1.1;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108

RESULT 46
US-10-450-763-54360
; Sequence 54360, Application US/10450763
; Publication No. US20050196754A1
; GENERAL INFORMATION:
; APPLICANT: Hyseq, Inc
; TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES
; FILE REFERENCE: 790CIP3/US
; CURRENT APPLICATION NUMBER: US/10/450,763
; CURRENT FILING DATE: 2003-06-11
; PRIOR APPLICATION NUMBER: PCT/US01/08631
; PRIOR FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: 09/540,217
; PRIOR FILING DATE: 2000-03-31
; PRIOR APPLICATION NUMBER: 09/649,167
; PRIOR FILING DATE: 2000-08-23
; NUMBER OF SEQ ID NOS: 60736
; SOFTWARE: Custom
; SEQ ID NO 54360
; LENGTH: 468
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: DOMAIN
; LOCATION: (221)..(258)
; OTHER INFORMATION: Type II fibronectin collagen-binding domain proteins domain
; OTHER INFORMATION: identified by eMATRIX, accession number BL00023, p-value=4.682e-3
; OTHER INFORMATION: raw score of 24.31
; FEATURE:
; NAME/KEY: DOMAIN
; LOCATION: (167)..(264)
; OTHER INFORMATION: Fibronectin type II domain identified by Pfam, accession name
; OTHER INFORMATION: fn2, E-value=4.4e-55, Pfam score of 147.1
; FEATURE:
```

```
; NAME/KEY: misc feature
; LOCATION: (1)...(468)
; OTHER INFORMATION: Xaa = X or * as defined in Table 2
US-10-450-763-54360

Query Match 100.0%; Score 54; DB 5; Length 468;
Best Local Similarity 100.0%; Pred. No. 1.1;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 86 PRCGNPDVA 94

RESULT 47
US-09-391-104-19
; Sequence 19, Application US/09391104
; Publication No. US20020031817A1
; GENERAL INFORMATION:
; APPLICANT: Abbott Laboratories
; APPLICANT: Falduto, Michael T.
; APPLICANT: Magnuson, Scott R.
; APPLICANT: Morgan, Douglas W.
; TITLE OF INVENTION: HUMAN MATRIX METALLOPROTEINASE GENE,
; TITLE OF INVENTION: PROTEINS ENCODED THEREFROM AND METHODS
; TITLE OF INVENTION: OF USING SAME
; FILE REFERENCE: 6073.US.P1
; CURRENT APPLICATION NUMBER: US/09/391,104
; CURRENT FILING DATE: 1999-09-07
; PRIOR APPLICATION NUMBER: US 08/814,394
; PRIOR FILING DATE: 1997-03-11
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 19
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-391-104-19

Query Match 100.0%; Score 54; DB 3; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108

RESULT 48
US-09-801-196-35
; Sequence 35, Application US/09801196
; Patent No. US20020037827A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Kai
; APPLICANT: Smith, Ryan
; APPLICANT: Fajardo, Mark
; APPLICANT: Moss, Patrick
; TITLE OF INVENTION: A NOVEL MATRIX METALLOPROTEINASE (MMP-25)
; TITLE OF INVENTION: EXPRESSED IN SKIN CELLS
; FILE REFERENCE: 240083.509
; CURRENT APPLICATION NUMBER: US/09/801,196
; CURRENT FILING DATE: 2001-03-06
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 35
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-801-196-35

Query Match 100.0%; Score 54; DB 3; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

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QY      1 PRGPNPDVA 9
Db      100 PRGPNPDVA 108

RESULT 49
US-09-918-715-208
; Sequence 208, Application US/09918715
; Publication No. US20030017157A1
; GENERAL INFORMATION:
; APPLICANT: Millennium Pharmaceuticals, Inc.
; APPLICANT: Berger, Allison
; APPLICANT: Guillemette, Tracy L.
; APPLICANT: Kamatkar, Shubhangi
; APPLICANT: Schlegel, Robert
; APPLICANT: Monahan, John E.
; APPLICANT: Thibodeau, Stephen N.
; APPLICANT: Burgart, Lawrence J.
; TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
; TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
; TITLE OF INVENTION: THERAPY OF COLON CANCER
; FILE REFERENCE: MEM01-029P2RNM
; CURRENT APPLICATION NUMBER: US/10/301,822
; CURRENT FILING DATE: 2002-11-21
; PRIOR FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US 60/339,971
; PRIOR FILING DATE: 2001-12-10
; PRIOR APPLICATION NUMBER: US 60/361,978
; PRIOR FILING DATE: 2002-03-05
; PRIOR APPLICATION NUMBER: US 60/381,988
; PRIOR FILING DATE: 2002-05-20
; NUMBER OF SEQ ID NOS: 228
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 208
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-918-715-208

Query Match      100.0%; Score 54; DB 3; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 PRGPNPDVA 9
Db      100 PRGPNPDVA 108

RESULT 50
US-10-219-329-14
; Sequence 14, Application US/10219329
; Publication No. US20030096757A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Weart, Iлона f.
; TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds
; FILE REFERENCE: 1443.035W01
; CURRENT APPLICATION NUMBER: US/10/219,329
; CURRENT FILING DATE: 2002-08-15
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-329-14

Query Match      100.0%; Score 54; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 PRGPNPDVA 9
Db      100 PRGPNPDVA 108

RESULT 51
US-10-301-822-125
; Sequence 125, Application US/10301822
; Publication No. US20030148410A1
; GENERAL INFORMATION:
; APPLICANT: Millennium Pharmaceuticals, Inc.
; APPLICANT: Berger, Allison
; APPLICANT: Guillemette, Tracy L.
; APPLICANT: Kamatkar, Shubhangi
; APPLICANT: Schlegel, Robert
; APPLICANT: Monahan, John E.
; APPLICANT: Thibodeau, Stephen N.
; APPLICANT: Burgart, Lawrence J.
; TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
; TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
; TITLE OF INVENTION: THERAPY OF COLON CANCER
; FILE REFERENCE: MEM01-029P2RNM
; CURRENT APPLICATION NUMBER: US/10/301,822
; CURRENT FILING DATE: 2002-11-21
; PRIOR FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US 60/339,971
; PRIOR FILING DATE: 2001-12-10
; PRIOR APPLICATION NUMBER: US 60/361,978
; PRIOR FILING DATE: 2002-03-05
; PRIOR APPLICATION NUMBER: US 60/381,988
; PRIOR FILING DATE: 2002-05-20
; NUMBER OF SEQ ID NOS: 228
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 125
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-301-822-125

Query Match      100.0%; Score 54; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 PRGPNPDVA 9
Db      100 PRGPNPDVA 108

RESULT 52
US-10-153-185-14
; Sequence 14, Application US/10153185
; Publication No. US20030148959A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034U01
; CURRENT APPLICATION NUMBER: US/10/153,185
; CURRENT FILING DATE: 2002-08-13
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-14

Query Match      100.0%; Score 54; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 PRGPNPDVA 9
Db      100 PRGPNPDVA 108

```

```
RESULT 53
US-10-219-561-14
; Sequence 14, Application US/10219561
; Publication No. US20030166567A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; APPLICANT: Villanueva, Julie M.
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.008US2
; CURRENT APPLICATION NUMBER: US/10/219,561
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-561-14

Query Match      100.0%; Score 54; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108

RESULT 54
US-10-131-985-25
; Sequence 25, Application US/10131985
; Publication No. US20030199440A1
; GENERAL INFORMATION:
; APPLICANT: Dack, Kevin N
; APPLICANT: Davies, Michael J
; APPLICANT: Fish, Paul V
; APPLICANT: Ruggins, Jonathan P
; APPLICANT: McIntosh, Fraser S
; APPLICANT: Ocleston, Nicholas L
; TITLE OF INVENTION: Composition
; FILE REFERENCE: PCS 10391A
; CURRENT APPLICATION NUMBER: US/10/131,985
; CURRENT FILING DATE: 2002-04-25
; PRIOR APPLICATION NUMBER: US/09/726,295
; PRIOR FILING DATE: 2000-11-30
; PRIOR APPLICATION NUMBER: GB 9930768.8
; PRIOR FILING DATE: 1999-12-29
; NUMBER OF SEQ ID NOS: 60
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 25
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-131-985-25

Query Match      100.0%; Score 54; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108

RESULT 55
US-10-335-207-14
; Sequence 14, Application US/10335207
; Publication No. US20040127421A1
; GENERAL INFORMATION:
; APPLICANT: Malik, Sohail
; APPLICANT: Quirk, Stephen
; TITLE OF INVENTION: Method to Increase Fibronectin
; FILE REFERENCE: 1443.047US1
; CURRENT APPLICATION NUMBER: US/10/335,207
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSEQ for Windows Version 4.0
```

```
US-10-447-315-3
; Sequence 3, Application US/10447315
; Publication No. US20040071687A1
; GENERAL INFORMATION:
; APPLICANT: Rafii, Shahin
; APPLICANT: Heissig, Beate
; APPLICANT: Hattori, Koichi
; APPLICANT: Cornell Research Foundation, Inc.
; TITLE OF INVENTION: Adult Stem Cell Recruitment
; FILE REFERENCE: 1676.006US1
; CURRENT APPLICATION NUMBER: US/10/447,315
; CURRENT FILING DATE: 2003-05-28
; PRIOR APPLICATION NUMBER: US 60/383,658
; PRIOR FILING DATE: 2002-05-28
; NUMBER OF SEQ ID NOS: 28
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 3
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-447-315-3

Query Match      100.0%; Score 54; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108

RESULT 56
US-10-032-376A-14
; Sequence 14, Application US/10032376A
; Publication No. US20040127420A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Steven
; TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing
; FILE REFERENCE: 1443.008US1
; CURRENT APPLICATION NUMBER: US/10/032,376A
; CURRENT FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-032-376A-14

Query Match      100.0%; Score 54; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 100 PRCGNPDVA 108

RESULT 57
US-10-335-207-14
; Sequence 14, Application US/10335207
; Publication No. US20040127421A1
; GENERAL INFORMATION:
; APPLICANT: Malik, Sohail
; APPLICANT: Quirk, Stephen
; TITLE OF INVENTION: Method to Increase Fibronectin
; FILE REFERENCE: 1443.047US1
; CURRENT APPLICATION NUMBER: US/10/335,207
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSEQ for Windows Version 4.0
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```
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-335-207-14

Query Match      100.0%; Score 54; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 PRCGNPDVA 9
Db      100 PRCGNPDVA 108

RESULT 58
US-10-480-621-1
; Sequence 1, Application US/10480621
; Publication No. US20040175817A1
; GENERAL INFORMATION:
; APPLICANT: Jepson, Holly
; APPLICANT: Minshull, Claire
; APPLICANT: Pauplit, Richard
; APPLICANT: Rowsell, Sian
; TITLE OF INVENTION: A CRYSTALLISED CATALYTIC DOMAIN OF MATRIX
; TITLE OF INVENTION: METALLOPROTEINASE 9 (MMP9) AND THE USE OF
; TITLE OF INVENTION: ITS THREE DIMENSIONAL STRUCTURE TO DESIGN
; TITLE OF INVENTION: MMP9 MODULATORS
; FILE REFERENCE: 06275-377US1
; CURRENT APPLICATION NUMBER: US/10/480,621
; CURRENT FILING DATE: 2003-12-12
; PRIOR APPLICATION NUMBER: PCT/SE02/01266
; PRIOR FILING DATE: 2002-06-24
; PRIOR APPLICATION NUMBER: SE 0102298-7
; PRIOR FILING DATE: 2001-06-27
; NUMBER OF SEQ ID NOS: 2
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-480-621-1

Query Match      100.0%; Score 54; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 PRCGNPDVA 9
Db      100 PRCGNPDVA 108

RESULT 59
US-10-474-794-208
; Sequence 208, Application US/10474794
; Publication No. US20040213793A1
; GENERAL INFORMATION:
; APPLICANT: Carson-Walter, Eleanor
; APPLICANT: St. Croix, Brad
; APPLICANT: Vogelstein, Bert
; APPLICANT: Kinzler, Kenneth
; TITLE OF INVENTION: ENDOTHELIAL CELL EXPRESSION PATTERNS
; FILE REFERENCE: 1107 00179
; CURRENT APPLICATION NUMBER: US/10/474,794
; CURRENT FILING DATE: 2003-10-14
; PRIOR APPLICATION NUMBER: 60/282,850
; PRIOR FILING DATE: 2001-04-11
; PRIOR APPLICATION NUMBER: 60/308,829
; PRIOR FILING DATE: 2001-08-01
; NUMBER OF SEQ ID NOS: 359
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 208
; LENGTH: 660
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-474-794-208

Query Match      100.0%; Score 54; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 PRCGNPDVA 9
Db      100 PRCGNPDVA 108

RESULT 60
US-10-601-059-14
; Sequence 14, Application US/10601059
; Publication No. US20040259802A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shu-Ping
; APPLICANT: Quirk, Stephen
; APPLICANT: Kimberly-Clark Worldwide, Inc.
; TITLE OF INVENTION: Anti-Chondrosarcoma Compounds
; FILE REFERENCE: 1443.064US1
; CURRENT APPLICATION NUMBER: US/10/601,059
; CURRENT FILING DATE: 2003-06-20
; PRIOR APPLICATION NUMBER: US 10/335,207
; PRIOR FILING DATE: 2002-12-30
; PRIOR APPLICATION NUMBER: US 10/219,329
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: PCT/US02/26319
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-601-059-14

Query Match      100.0%; Score 54; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 PRCGNPDVA 9
Db      100 PRCGNPDVA 108

RESULT 61
US-10-872-198-131
; Sequence 131, Application US/10872198
; Publication No. US20050002897A1
; GENERAL INFORMATION:
; APPLICANT: Ulrich HAUPTS
; APPLICANT: Andre KOLTERMANN
; APPLICANT: Andreas SCHEIDIG
; APPLICANT: Christian VOETSMEIER
; APPLICANT: Ulrich Ketting
; TITLE OF INVENTION: NEW BIOLOGICAL ENTITIES AND USE THEREOF
; FILE REFERENCE: 04156.0002U4
; CURRENT APPLICATION NUMBER: US/10/872,198
; CURRENT FILING DATE: 2004-06-18
; PRIOR APPLICATION NUMBER: 60/543,518
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/524,960
; PRIOR FILING DATE: 2003-11-25
; PRIOR APPLICATION NUMBER: EP 04003058
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; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: EP 03025871
; PRIOR FILING DATE: 2003-11-11
; PRIOR APPLICATION NUMBER: EP 03025851
; PRIOR FILING DATE: 2003-11-10
; PRIOR APPLICATION NUMBER: EP 03013819
; PRIOR FILING DATE: 2003-06-18
; NUMBER OF SEQ ID NOS: 149
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 131
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-872-198-131

Query Match      100.0%; Score 54; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 PRCGNPDVA 9
Db      100 PRCGNPDVA 108

RESULT 62
US-10-901-417-25
; Sequence 25, Application US/10901417
; Publication No. US20050026836A1
; GENERAL INFORMATION:
; APPLICANT: Dack, Kevin N
; APPLICANT: Davies, Michael J
; APPLICANT: Fish, Paul V
; APPLICANT: Huggins, Jonathan P
; APPLICANT: McIntosh, Fraser S
; APPLICANT: Ocleston, Nicholas L
; TITLE OF INVENTION: Composition
; FILE REFERENCE: PCS 10391A
; CURRENT APPLICATION NUMBER: US/10/901,417
; CURRENT FILING DATE: 2004-07-28
; PRIOR APPLICATION NUMBER: US/10/131,985
; PRIOR FILING DATE: 2002-04-25
; PRIOR APPLICATION NUMBER: US/09/726,295
; PRIOR FILING DATE: 2000-11-30
; PRIOR APPLICATION NUMBER: GB 9930768.8
; PRIOR FILING DATE: 1999-12-29
; NUMBER OF SEQ ID NOS: 60
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 25
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-901-417-25

Query Match      100.0%; Score 54; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 PRCGNPDVA 9
Db      100 PRCGNPDVA 108

RESULT 63
US-10-979-159-208
; Sequence 208, Application US/10979159
; Publication No. US20050142138A1
; GENERAL INFORMATION:
; APPLICANT: Brad St. Croix
; APPLICANT: Bert Vogelstein
; APPLICANT: Kenneth Kinzler
; TITLE OF INVENTION: ENDOTHELIAL CELL EXPRESSION PATTERNS
; FILE REFERENCE: 1107.00134
; CURRENT APPLICATION NUMBER: US/10/979,159

; PRIOR FILING DATE: 2004-11-03
; PRIOR APPLICATION NUMBER: US/09/918,715
; PRIOR FILING DATE: 2001-08-01
; PRIOR APPLICATION NUMBER: 60/222,599
; PRIOR FILING DATE: 2000-08-02
; PRIOR APPLICATION NUMBER: 60/224,360
; PRIOR FILING DATE: 2000-08-11
; PRIOR APPLICATION NUMBER: 60/282,850
; PRIOR FILING DATE: 2000-04-11
; NUMBER OF SEQ ID NOS: 358
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 208
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-979-159-208

Query Match      100.0%; Score 54; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 PRCGNPDVA 9
Db      100 PRCGNPDVA 108

RESULT 64
US-10-287-436A-489
; Sequence 489, Application US/10287436A
; Publication No. US20050202421A1
; GENERAL INFORMATION:
; APPLICANT: CHILDREN'S HOSPITAL MEDICAL CENTER
; TITLE OF INVENTION: METHOD FOR DIAGNOSIS AND TREATMENT OF
; TITLE OF INVENTION: RHEUMATOID ARTHRITIS
; FILE REFERENCE: 10872.514696
; CURRENT APPLICATION NUMBER: US/10/287,436A
; CURRENT FILING DATE: 2002-10-31
; PRIOR APPLICATION NUMBER: US 60/336,220
; PRIOR FILING DATE: 2001-10-31
; NUMBER OF SEQ ID NOS: 1446
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 489
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-287-436A-489

Query Match      100.0%; Score 54; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 PRCGNPDVA 9
Db      100 PRCGNPDVA 108

RESULT 65
US-10-287-436A-1185
; Sequence 1185, Application US/10287436A
; Publication No. US20050202421A1
; GENERAL INFORMATION:
; APPLICANT: CHILDREN'S HOSPITAL MEDICAL CENTER
; TITLE OF INVENTION: METHOD FOR DIAGNOSIS AND TREATMENT OF
; TITLE OF INVENTION: RHEUMATOID ARTHRITIS
; FILE REFERENCE: 10872.514696
; CURRENT APPLICATION NUMBER: US/10/287,436A
; CURRENT FILING DATE: 2002-10-31
; PRIOR APPLICATION NUMBER: US 60/336,220
; PRIOR FILING DATE: 2001-10-31
; NUMBER OF SEQ ID NOS: 1446
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1185
; LENGTH: 660
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-287-436A-1185

Query Match      100.0%; Score 54; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
   |||||
Db 100 PRCGNPDVA 108

RESULT 66
US-11-021-951-131
; Sequence 131, Application US/11021951
; Publication No. US20050175581A1
; GENERAL INFORMATION:
; APPLICANT: HAUPTS, Ulrich
; APPLICANT: KOLTERMANN, Andre
; APPLICANT: SCHEIDIG, Andreas
; APPLICANT: VOTSMEIER, Christian
; APPLICANT: Kettling, Ulrich
; APPLICANT: COCO, Wayne Michael
; TITLE OF INVENTION: New Biological Entities And The Pharmaceutical
; FILE REFERENCE: 04156.0002U5
; CURRENT APPLICATION NUMBER: US/11/021,951
; CURRENT FILING DATE: 2004-12-22
; PRIOR FILING DATE: 2004-12-22
; PRIOR FILING DATE: 2004-06-18
; PRIOR FILING DATE: 2004-06-18
; PRIOR FILING DATE: 2004-02-11
; PRIOR FILING DATE: 2004-02-11
; PRIOR FILING DATE: 2003-11-25
; PRIOR FILING DATE: 2003-11-25
; PRIOR FILING DATE: 2004-06-18
; PRIOR FILING DATE: 2004-02-11
; PRIOR FILING DATE: 2003-11-11
; PRIOR FILING DATE: 2003-11-11
; PRIOR FILING DATE: 2003-11-10
; PRIOR FILING DATE: 2003-06-18
; NUMBER OF SEQ ID NOS: 191
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 131
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-021-951-131

Query Match      100.0%; Score 54; DB 6; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
   |||||
Db 100 PRCGNPDVA 108

RESULT 67
US-11-031-488-14
; Sequence 14, Application US/11031488
; Publication No. US20050239710A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; APPLICANT: Anti-Aging and Wound Healing Compounds
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/11/031,488
; CURRENT FILING DATE: 2005-01-07
; PRIOR APPLICATION NUMBER: US/10/153,185
; PRIOR FILING DATE: 2002-05-21

; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-032-376

Query Match      100.0%; Score 54; DB 6; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
   |||||
Db 100 PRCGNPDVA 108

RESULT 68
US-10-115-223-30
; Sequence 30, Application US/10115223
; Publication No. US20030176334A1
; GENERAL INFORMATION:
; APPLICANT: Brooks, Peter
; APPLICANT: Cheresch, David A.
; TITLE OF INVENTION: METHODS AND COMPOSITIONS USEFUL FOR INHIBITION OF
; FILE REFERENCE: MER0049S
; CURRENT APPLICATION NUMBER: US/10/115,223
; CURRENT FILING DATE: 2002-04-02
; PRIOR FILING DATE: 1999-03-23
; PRIOR FILING DATE: 1996-05-31
; PRIOR FILING DATE: 1996-05-31
; PRIOR FILING DATE: 1996-05-31
; PRIOR FILING DATE: 1996-05-31
; PRIOR FILING DATE: 1997-05-30
; NUMBER OF SEQ ID NOS: 45
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 30
; LENGTH: 663
; TYPE: PRT
; ORGANISM: Gallus gallus
US-10-115-223-30

Query Match      100.0%; Score 54; DB 4; Length 663;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRCGNPDVA 9
   |||||
Db 97 PRCGNPDVA 105

RESULT 69
US-10-402-212-30
; Sequence 30, Application US/10402212
; Publication No. US20040063790A1
; GENERAL INFORMATION:
; APPLICANT: Brooks, Peter C.
; APPLICANT: Cheresch, David A.
; APPLICANT: Silletti, Steven A.
; APPLICANT: The Scripps Research Institute
; TITLE OF INVENTION: METHODS FOR INHIBITION OF ANGIOGENESIS
; FILE REFERENCE: TSRI-419.3
; CURRENT APPLICATION NUMBER: US/10/402,212
; CURRENT FILING DATE: 2003-03-28
; PRIOR APPLICATION NUMBER: 10/115,223
; PRIOR FILING DATE: 2002-04-02
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; PRIOR APPLICATION NUMBER: 09/194,468
; PRIOR FILING DATE: 1999-03-23
; PRIOR APPLICATION NUMBER: PCT/US97/09158
; PRIOR FILING DATE: 1997-05-30
; PRIOR APPLICATION NUMBER: 60/018,773
; PRIOR FILING DATE: 1996-05-31
; PRIOR APPLICATION NUMBER: 60/015,869
; PRIOR FILING DATE: 1996-05-31
; NUMBER OF SEQ ID NOS: 47
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 30
; LENGTH: 663
; TYPE: PRT
; ORGANISM: Gallus gallus
US-10-402-212-30

Query Match 100.0%; Score 54; DB 4; Length 663;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 97 PRCGNPDVA 105

RESULT 70
US-10-450-763-54358
; Sequence 54358, Application US/10450763
; Publication No. US20050196754A1
; GENERAL INFORMATION:
; APPLICANT: Hyseq, Inc
; TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES
; FILE REFERENCE: 790CIP3/US
; CURRENT APPLICATION NUMBER: US/10/450,763
; CURRENT FILING DATE: 2003-06-11
; PRIOR APPLICATION NUMBER: PCT/US01/08631
; PRIOR FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: 09/540,217
; PRIOR FILING DATE: 2000-03-31
; PRIOR APPLICATION NUMBER: 09/649,167
; PRIOR FILING DATE: 2000-08-23
; NUMBER OF SEQ ID NOS: 60736
; SOFTWARE: Custom
; SEQ ID NO 54358
; LENGTH: 1330
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: DOMAIN
; LOCATION: (579)..(616)
; OTHER INFORMATION: Type II fibronectin collagen-binding domain proteins domain
; OTHER INFORMATION: identified by eMATRIX, accession number BL00023, p-value=4.682e-3
; OTHER INFORMATION: raw score of 24.31
; FEATURE:
; NAME/KEY: DOMAIN
; LOCATION: (271)..(451)
; OTHER INFORMATION: Matrixin domain identified by Pfam, accession name
; OTHER INFORMATION: Peptidase_M10, E-value=3.7e-109, Pfam score of 376.1
US-10-450-763-54358

Query Match 100.0%; Score 54; DB 5; Length 1330;
Best Local Similarity 100.0%; Pred. No. 3;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRCGNPDVA 9
Db 318 PRCGNPDVA 326

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OM protein - protein search, using sw model

Run on: February 21, 2006, 08:21:13 ; Search time 5.92105 Seconds
(without alignments)
21.644 Million cell updates/sec

Title: US-10-601-059-12

Perfect score: 54

Sequence: 1 PRGNDPDA 9

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 108093 seqs, 14239677 residues

Total number of hits satisfying chosen parameters: 108093

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database :

Published Applications AA_New:

- 1: /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep.*
- 2: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep.*
- 3: /cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep.*
- 4: /cgn2_6/ptodata/1/pubpaa/PTCT_NEW_PUB.pep.*
- 5: /cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep.*
- 6: /cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep.*
- 7: /cgn2_6/ptodata/1/pubpaa/US11_NEW_PUB.pep.*
- 8: /cgn2_6/ptodata/1/pubpaa/US60_NEW_PUB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match %	Length	DB ID	Description
1	54	100.0	660	7	US-11-186-284-125
2	54	100.0	708	6	US-10-821-234-917
3	45	83.3	19	6	US-10-503-575-150
4	45	83.3	267	6	US-10-995-561-542
5	45	83.3	267	7	US-11-186-284-129
6	45	83.3	469	7	US-11-186-284-119
7	45	83.3	483	7	US-11-037-243-79
8	41	75.9	444	7	US-11-043-788-244
9	41	75.9	477	7	US-11-186-284-127
10	41	75.9	477	7	US-11-043-788-243
11	41	75.9	513	6	US-10-131-826A-192
12	41	75.9	513	6	US-10-995-561-566
13	38	70.4	225	7	US-11-043-788-278
14	38	70.4	276	7	US-11-043-788-277
15	38	70.4	360	7	US-11-043-788-276
16	38	70.4	475	7	US-11-186-284-123
17	38	70.4	475	7	US-11-174-150-45
18	38	70.4	475	7	US-11-186-284-132
19	38	70.4	707	7	US-11-044-640-2
20	38	70.4	707	7	US-11-043-788-275
21	37	68.5	488	6	US-10-821-234-1654
22	37	68.5	488	7	US-11-186-284-121
23	37	68.5	582	7	US-11-090-439-58
24	37	68.5	582	7	US-11-169-041-130
25	37	68.5	607	7	US-11-080-991-88

26	36	66.7	290	6	US-10-467-657-5128
27	36	66.7	1018	7	US-11-067-121-17
28	36	66.7	1028	7	US-11-067-121-7
29	36	66.7	1036	6	US-10-131-826A-142
30	35	64.8	249	6	US-10-793-626-306
31	35	64.8	274	7	US-11-072-512-3379
32	35	64.8	336	6	US-10-793-626-1858
33	35	64.8	452	6	US-10-793-626-3092
34	34	63.0	420	6	US-10-793-626-3300
35	34	63.0	496	6	US-10-793-626-2896
36	33	61.1	28	6	US-10-467-657-8865
37	33	61.1	517	6	US-10-055-877-304
38	33	61.1	548	6	US-10-055-877-320
39	33	61.1	600	6	US-10-055-877-103
40	33	61.1	675	6	US-10-055-877-117
41	33	61.1	675	6	US-10-055-877-317
42	33	61.1	675	6	US-10-055-877-318
43	32	59.3	35	7	US-11-055-163-3
44	32	59.3	35	7	US-11-055-163-4
45	32	59.3	36	6	US-10-467-657-5744

ALIGNMENTS

RESULT 1

US-11-186-284-125
; Sequence 125, Application US/11186284
; Publication No. US2005026493A1
; GENERAL INFORMATION:
; APPLICANT: Millennium Pharmaceuticals, Inc.
; APPLICANT: Berger, Allison
; APPLICANT: Guillemette, Tracy L.
; APPLICANT: Kamatkar, Shubhangi
; APPLICANT: Schlegel, Robert
; APPLICANT: Monahan, John E.
; APPLICANT: Thibodeau, Stephen N.
; APPLICANT: BURGART, Lawrence J.
; TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
; TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
; FILE REFERENCE: MEMO1-029P2RNM
; CURRENT APPLICATION NUMBER: US/11/186,284
; CURRENT FILING DATE: 2005-07-21
; PRIOR APPLICATION NUMBER: US/10/301,822
; PRIOR FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US 60/339,971
; PRIOR FILING DATE: 2001-12-10
; PRIOR APPLICATION NUMBER: US 60/361,978
; PRIOR FILING DATE: 2002-03-05
; PRIOR APPLICATION NUMBER: US 60/381,988
; PRIOR FILING DATE: 2002-05-20
; NUMBER OF SEQ ID NOS: 228
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 125
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo Sapiens
US-11-186-284-125

Query Match 100.0%; Score 54; DB 7; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.042;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PRGNDPDA 9
| | | | | | | | | |
Db 100 PRGNDPDA 108

RESULT 2

US-10-821-234-917
; Sequence 917, Application US/10821234
; Publication No. US20050255114A1

```
; GENERAL INFORMATION:
; APPLICANT: Labat, Ivan
; APPLICANT: Stache-Crain, Birgit
; APPLICANT: Andarmani, Susan
; APPLICANT: Tang, Y. Tom
; TITLE OF INVENTION: Methods for Diagnosis and Treatment of Preeclampsia
; FILE REFERENCE: 821A
; CURRENT APPLICATION NUMBER: US/10/821,234
; CURRENT FILING DATE: 2004-04-07
; PRIOR APPLICATION NUMBER: US 60/462,047
; PRIOR FILING DATE: 2003-04-07
; NUMBER OF SEQ ID NOS: 1704
; SOFTWARE: pt_seq_genes Version 1.0
; SEQ ID NO 917
; LENGTH: 708
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-821-234-917

Query Match      100.0%; Score 54; DB 6; Length 708;
Best Local Similarity 100.0%; Pred. No. 0.045;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 PRCGNPDVA 9
Db      148 PRCGNPDVA 156

RESULT 3
US-10-503-575-150
; Sequence 150, Application US/10503575
; Publication No. US2005024823A1
; GENERAL INFORMATION:
; APPLICANT: Drijfhout, Jan Wouter
; APPLICANT: van Veelen, Petrus Antonius
; APPLICANT: Koning, Frits
; TITLE OF INVENTION: NOVEL EPITOPES FOR CELIAC DISEASE AND AUTOIMMUNE DISEASES, METHOD
; FILE REFERENCE: 2799/72843-PCT-US
; CURRENT APPLICATION NUMBER: US/10/503,575
; CURRENT FILING DATE: 2004-08-04
; PRIOR APPLICATION NUMBER: PCT/NL03/00077
; PRIOR FILING DATE: 2003-02-04
; PRIOR APPLICATION NUMBER: EP 02075456.0
; PRIOR FILING DATE: 2002-02-04
; NUMBER OF SEQ ID NOS: 340
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 150
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-503-575-150

Query Match      83.3%; Score 45; DB 6; Length 19;
Best Local Similarity 88.9%; Pred. No. 0.05;
Matches 8; Conservative 0; Mismatches 1; Indels 1; Gaps 0;

QY      1 PRCGNPDVA 9
Db      1 PRCGVDPVA 9

RESULT 4
US-10-995-561-542
; Sequence 542, Application US/10995561
; Publication No. US20050272054A1
; GENERAL INFORMATION:
; APPLICANT: CARGILL, Michele et al.
; TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
; TITLE OF INVENTION: CARDIOVASCULAR DISORDERS AND DRUG RESPONSE, METHODS OF
; TITLE OF INVENTION: DETECTION AND USES THEREOF
; FILE REFERENCE: CL001559
; CURRENT APPLICATION NUMBER: US/10/995,561

; GENERAL INFORMATION:
; APPLICANT: Millennium Pharmaceuticals, Inc.
; APPLICANT: Berger, Allison
; APPLICANT: Guillemette, Tracy L.
; APPLICANT: Kamatkar, Shubhangi
; APPLICANT: Schlegel, Robert
; APPLICANT: Monahan, John E.
US-10-995-561-542

Query Match      83.3%; Score 45; DB 6; Length 267;
Best Local Similarity 88.9%; Pred. No. 0.61;
Matches 8; Conservative 0; Mismatches 1; Indels 1; Gaps 0;

QY      1 PRCGNPDVA 9
Db      85 PRCGVDPVA 93

RESULT 5
US-11-186-284-129
; Sequence 129, Application US/11186284
; Publication No. US20050266493A1
; GENERAL INFORMATION:
; APPLICANT: Millennium Pharmaceuticals, Inc.
; APPLICANT: Berger, Allison
; APPLICANT: Guillemette, Tracy L.
; APPLICANT: Kamatkar, Shubhangi
; APPLICANT: Schlegel, Robert
; APPLICANT: Monahan, John E.
; APPLICANT: Thibodeau, Stephen N.
; APPLICANT: Burgart, Lawrence J.
; TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
; TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
; FILE REFERENCE: MPM01-029P2RNM
; CURRENT APPLICATION NUMBER: US/11/186,284
; CURRENT FILING DATE: 2005-07-21
; PRIOR APPLICATION NUMBER: US/10/301,822
; PRIOR FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US 60/339,971
; PRIOR FILING DATE: 2001-12-10
; PRIOR APPLICATION NUMBER: US 60/361,978
; PRIOR FILING DATE: 2002-03-05
; PRIOR APPLICATION NUMBER: US 60/381,988
; PRIOR FILING DATE: 2002-05-20
; NUMBER OF SEQ ID NOS: 228
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 129
; LENGTH: 267
; TYPE: PRT
; ORGANISM: Homo Sapiens
US-11-186-284-129

Query Match      83.3%; Score 45; DB 7; Length 267;
Best Local Similarity 88.9%; Pred. No. 0.61;
Matches 8; Conservative 0; Mismatches 1; Indels 1; Gaps 0;

QY      1 PRCGNPDVA 9
Db      85 PRCGVDPVA 93

RESULT 6
US-11-186-284-119
; Sequence 119, Application US/11186284
; Publication No. US20050266493A1
; GENERAL INFORMATION:
; APPLICANT: Millennium Pharmaceuticals, Inc.
; APPLICANT: Berger, Allison
; APPLICANT: Guillemette, Tracy L.
; APPLICANT: Kamatkar, Shubhangi
; APPLICANT: Schlegel, Robert
; APPLICANT: Monahan, John E.
US-11-186-284-119

Query Match      83.3%; Score 45; DB 7; Length 267;
Best Local Similarity 88.9%; Pred. No. 0.61;
Matches 8; Conservative 0; Mismatches 1; Indels 1; Gaps 0;

QY      1 PRCGNPDVA 9
Db      85 PRCGVDPVA 93
```

; APPLICANT: Thibodeau, Stephen N.
 ; APPLICANT: Burgart, Lawrence J.
 ; TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
 ; TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
 ; TITLE OF INVENTION: THERAPY OF COLON CANCER
 ; FILE REFERENCE: MPM01-029P2RNM
 ; CURRENT APPLICATION NUMBER: US/11/186,284
 ; CURRENT FILING DATE: 2005-07-21
 ; PRIOR APPLICATION NUMBER: US/10/301,822
 ; PRIOR FILING DATE: 2002-11-21
 ; PRIOR APPLICATION NUMBER: US 60/339,971
 ; PRIOR FILING DATE: 2001-12-10
 ; PRIOR APPLICATION NUMBER: US 60/361,978
 ; PRIOR FILING DATE: 2002-03-05
 ; PRIOR APPLICATION NUMBER: US 60/381,988
 ; PRIOR FILING DATE: 2002-05-20
 ; NUMBER OF SEQ ID NOS: 228
 ; SOFTWARE: FastSEQ for Windows Version 4.0
 ; SEQ ID NO 119
 ; LENGTH: 469
 ; TYPE: PRT
 ; ORGANISM: Homo Sapiens
 US-11-186-284-119

Query Match 83.3%; Score 45; DB 7; Length 469;
 Best Local Similarity 88.9%; Pred. No. 1;
 Matches 8; Conservative 0; Mismatches 1; Indels 1; Gaps 0;

QY 1 PRCGNPDVA 9
 Db 90 PRCGVPDVA 98

RESULT 7

US-11-037-243-79
 ; Sequence 79, Application US/11037243
 ; Publication No. US20050287546A1
 ; GENERAL INFORMATION:
 ; APPLICANT: PLOWMAN, GREGORY
 ; APPLICANT: WHYTE, DAVID
 ; APPLICANT: CAENEPPEL, SEAN
 ; APPLICANT: CHARYDCZAK, GLEN
 ; APPLICANT: MANNING, GERARD
 ; APPLICANT: SUDARSANAM, SUCHA
 ; TITLE OF INVENTION: NOVEL PROTEASES
 ; FILE REFERENCE: 038602/1214
 ; CURRENT APPLICATION NUMBER: US/11/037,243
 ; CURRENT FILING DATE: 2005-05-26
 ; PRIOR APPLICATION NUMBER: US/09/888,615
 ; PRIOR FILING DATE: 2001-06-26
 ; PRIOR APPLICATION NUMBER: 60/214,047
 ; PRIOR FILING DATE: 2000-06-26
 ; NUMBER OF SEQ ID NOS: 150
 ; SOFTWARE: PatentIn Ver. 2.1
 ; SEQ ID NO 79
 ; LENGTH: 483
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-11-037-243-79

Query Match 83.3%; Score 45; DB 7; Length 483;
 Best Local Similarity 88.9%; Pred. No. 1.1;
 Matches 8; Conservative 0; Mismatches 1; Indels 1; Gaps 0;

QY 1 PRCGNPDVA 9
 Db 98 PRCGVPDVA 106

RESULT 8

US-11-043-788-244
 ; Sequence 244, Application US/11043788
 ; Publication No. US20060014166A1

; GENERAL INFORMATION:
 ; APPLICANT: Compugen Ltd
 ; TITLE OF INVENTION: NOVEL NUCLEOTIDE AND AMINO ACID SEQUENCES, AND ASSAYS AND METHODS
 ; TITLE OF INVENTION: THEROP FOR DIAGNOSIS OF ENDOMETRIOSIS
 ; FILE REFERENCE: 1847.1006
 ; CURRENT APPLICATION NUMBER: US/11/043,788
 ; CURRENT FILING DATE: 2005-01-27
 ; NUMBER OF SEQ ID NOS: 506
 ; SEQ ID NO 244
 ; LENGTH: 444
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-11-043-788-244

Query Match 75.9%; Score 41; DB 7; Length 444;
 Best Local Similarity 87.5%; Pred. No. 4.8;
 Matches 7; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 PRCGNPDV 8
 Db 57 PRCGVPDV 64

RESULT 9

US-11-186-284-127
 ; Sequence 127, Application US/11186284
 ; Publication No. US20050266493A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Millennium Pharmaceuticals, Inc.
 ; APPLICANT: Berger, Allison
 ; APPLICANT: Guillemette, Tracy L.
 ; APPLICANT: Kamatkar, Shubhangi
 ; APPLICANT: Schlegel, Robert
 ; APPLICANT: Monahan, John E.
 ; APPLICANT: Thibodeau, Stephen N.
 ; APPLICANT: Burgart, Lawrence J.
 ; TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
 ; TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
 ; TITLE OF INVENTION: THERAPY OF COLON CANCER
 ; FILE REFERENCE: MPM01-029P2RNM
 ; CURRENT APPLICATION NUMBER: US/11/186,284
 ; CURRENT FILING DATE: 2005-07-21
 ; PRIOR APPLICATION NUMBER: US/10/301,822
 ; PRIOR FILING DATE: 2002-11-21
 ; PRIOR APPLICATION NUMBER: US 60/339,971
 ; PRIOR FILING DATE: 2001-12-10
 ; PRIOR APPLICATION NUMBER: US 60/361,978
 ; PRIOR FILING DATE: 2002-03-05
 ; PRIOR APPLICATION NUMBER: US 60/381,988
 ; PRIOR FILING DATE: 2002-05-20
 ; NUMBER OF SEQ ID NOS: 228
 ; SOFTWARE: FastSEQ for Windows Version 4.0
 ; SEQ ID NO 127
 ; LENGTH: 477
 ; TYPE: PRT
 ; ORGANISM: Homo Sapiens
 US-11-186-284-127

Query Match 75.9%; Score 41; DB 7; Length 477;
 Best Local Similarity 87.5%; Pred. No. 5.1;
 Matches 7; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 PRCGNPDV 8
 Db 90 PRCGVPDV 97

RESULT 10

US-11-043-788-243
 ; Sequence 243, Application US/11043788
 ; Publication No. US20060014166A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Compugen Ltd

```
; TITLE OF INVENTION: NOVEL NUCLEOTIDE AND AMINO ACID SEQUENCES, AND ASSAYS AND METHODS
; FILE OF INVENTION: THEREOF FOR DIAGNOSIS OF ENDOMETRIOSIS
; FILE REFERENCE: 1847.1006
; CURRENT APPLICATION NUMBER: US/11/043,788
; CURRENT FILING DATE: 2005-01-27
; NUMBER OF SEQ ID NOS: 506
; SEQ ID NO 243
; LENGTH: 477
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-043-788-243

Query Match      75.9%; Score 41; DB 7; Length 477;
Best Local Similarity 87.5%; Pred. No. 5.1;
Matches 7; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY      1 PRCGPDV 8
Db      90 PRCGVPD 97
      |||||

RESULT 11
US-10-131-826A-192
; Sequence 192, Application US/10131826A
; Publication No. US20050245730A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
; APPLICANT: Beresini, Maureen
; APPLICANT: DeForge, Laura
; APPLICANT: Desnoyers, Luc
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Sherwood, Steven
; APPLICANT: Smith, Victoria
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Watanabe, Colin K
; APPLICANT: Zhang, Zemin
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
; TITLE OF INVENTION: ACIDS ENCODING THE SAME
; FILE REFERENCE: P3330R1C128
; CURRENT APPLICATION NUMBER: US/10/131,826A
; CURRENT FILING DATE: 2002-04-24
; PRIOR FILING DATE: 1997-06-18
; PRIOR APPLICATION NUMBER: 60/049911
; PRIOR FILING DATE: 1997-06-18
; PRIOR APPLICATION NUMBER: 60/056974
; PRIOR FILING DATE: 1997-08-26
; PRIOR APPLICATION NUMBER: 60/059113
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059115
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059117
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059122
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059184
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059263
; PRIOR FILING DATE: 1997-09-18
; PRIOR APPLICATION NUMBER: 60/059352
; PRIOR FILING DATE: 1997-09-19
; PRIOR APPLICATION NUMBER: 60/059588
; PRIOR FILING DATE: 1997-09-19
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 550
; SEQ ID NO 192
; LENGTH: 513
; TYPE: PRT
```

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; ORGANISM: Homo Sapien
US-10-131-826A-192
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Query Match      75.9%; Score 41; DB 6; Length 513;
Best Local Similarity 87.5%; Pred. No. 5.5;
Matches 7; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
```

```
QY      1 PRCGPDV 8
Db      89 PRCGVPD 96
      |||||
```

```
RESULT 12
US-10-995-561-566
; Sequence 566, Application US/10995561
; Publication No. US20050272054A1
; GENERAL INFORMATION:
; APPLICANT: CARGILL, Michele et al.
; TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
; TITLE OF INVENTION: CARDIOVASCULAR DISORDERS AND DRUG RESPONSE, METHODS OF
; FILE REFERENCE: CL001559
; CURRENT APPLICATION NUMBER: US/10/995,561
; CURRENT FILING DATE: 2004-11-24
; NUMBER OF SEQ ID NOS: 85702
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 566
; LENGTH: 513
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-995-561-566
```

```
Query Match      75.9%; Score 41; DB 6; Length 513;
Best Local Similarity 87.5%; Pred. No. 5.5;
Matches 7; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
```

```
QY      1 PRCGPDV 8
Db      89 PRCGVPD 96
      |||||
```

```
RESULT 13
US-11-043-788-278
; Sequence 278, Application US/11043788
; Publication No. US20060014166A1
; GENERAL INFORMATION:
; APPLICANT: Complugen Ltd
; TITLE OF INVENTION: NOVEL NUCLEOTIDE AND AMINO ACID SEQUENCES, AND ASSAYS AND METHODS
; TITLE OF INVENTION: THEREOF FOR DIAGNOSIS OF ENDOMETRIOSIS
; FILE REFERENCE: 1847.1006
; CURRENT APPLICATION NUMBER: US/11/043,788
; CURRENT FILING DATE: 2005-01-27
; NUMBER OF SEQ ID NOS: 506
; SEQ ID NO 278
; LENGTH: 225
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-043-788-278
```

```
Query Match      75.9%; Score 41; DB 6; Length 513;
Best Local Similarity 87.5%; Pred. No. 5.5;
Matches 7; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
```

```
QY      1 PRCGPDV 8
Db      89 PRCGVPD 96
      |||||
```

```
RESULT 14
US-11-043-788-277
; Sequence 277, Application US/11043788
; Publication No. US20060014166A1
; GENERAL INFORMATION:
; APPLICANT: Complugen Ltd
; TITLE OF INVENTION: NOVEL NUCLEOTIDE AND AMINO ACID SEQUENCES, AND ASSAYS AND METHODS
; TITLE OF INVENTION: THEREOF FOR DIAGNOSIS OF ENDOMETRIOSIS
; FILE REFERENCE: 1847.1006
; CURRENT APPLICATION NUMBER: US/11/043,788
; CURRENT FILING DATE: 2005-01-27
; NUMBER OF SEQ ID NOS: 506
; SEQ ID NO 278
; LENGTH: 225
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-043-788-277
```

```
Query Match      70.4%; Score 38; DB 7; Length 225;
Best Local Similarity 75.0%; Pred. No. 8.1;
Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
```

```
QY      1 PRCGPDV 8
Db      97 PRCGVPD 104
      |||||
```

; APPLICANT: Compugen Ltd
; TITLE OF INVENTION: NOVEL NUCLEOTIDE AND AMINO ACID SEQUENCES, AND ASSAYS AND METHODS
; FILE REFERENCE: 1847.1006
; CURRENT APPLICATION NUMBER: US/11/043,788
; CURRENT FILING DATE: 2005-01-27
; NUMBER OF SEQ ID NOS: 506
; SEQ ID NO 277
; LENGTH: 276
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-043-788-277

Query Match 70.4%; Score 38; DB 7; Length 276;
Best Local Similarity 75.0%; Pred. No. 9.9;
Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 PRCGNPDV 8
Db 97 PRCGVPDL 104

RESULT 15
US-11-043-788-276
; Sequence 276, Application US/11043788
; Publication No. US20060014166A1
; GENERAL INFORMATION:
; APPLICANT: Compugen Ltd
; TITLE OF INVENTION: NOVEL NUCLEOTIDE AND AMINO ACID SEQUENCES, AND ASSAYS AND METHODS
; FILE REFERENCE: 1847.1006
; CURRENT APPLICATION NUMBER: US/11/043,788
; CURRENT FILING DATE: 2005-01-27
; NUMBER OF SEQ ID NOS: 506
; SEQ ID NO 276
; LENGTH: 360
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-043-788-276

Query Match 70.4%; Score 38; DB 7; Length 360;
Best Local Similarity 75.0%; Pred. No. 13;
Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 PRCGNPDV 8
Db 97 PRCGVPDL 104

Search completed: February 21, 2006, 08:26:29
Job time : 6.92105 secs

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GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: February 21, 2006, 07:54:15 ; Search time 15.5263 Seconds
(without alignments)
61.970 Million cell updates/sec

Title: US-10-601-059-13

Perfect score: 60

Sequence: 1 NYNFFPRKPK 10

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

PIR_80.*

1: pir1.*

2: pir2.*

3: pir3.*

4: pir4.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	60	100.0	660	1 A28153	Gelatinase A (EC 3
2	60	100.0	662	2 S70365	Gelatinase A (EC 3
3	60	100.0	662	2 A42496	Gelatinase A (EC 3
4	60	100.0	662	2 S34780	Gelatinase A (EC 3
5	60	100.0	663	1 S46492	Gelatinase A (EC 3
6	48	80.0	31	2 A23715	Gelatinase (EC 3.4
7	40	66.7	176	2 P72430	NADP-reducing hydr
8	39	65.0	121	2 H71086	hypothetical prote
9	39	65.0	403	1 S23802	homeotic protein 1
10	39	65.0	404	2 G01507	LIM domain transcr
11	39	65.0	406	1 F58187	homeotic protein 1
12	39	65.0	406	1 I48186	homeotic protein 1
13	39	65.0	406	1 I48637	homeotic protein 1
14	39	65.0	518	2 S55948	hypothetical prote
15	39	65.0	957	2 H69141	hypothetical prote
16	39	65.0	1015	2 A42915	type II cAMP-depen
17	38	63.3	343	2 S66173	matig factor MAT-
18	38	63.3	343	2 S34811	matig factor MAT1
19	38	63.3	360	2 R75319	conserved hypotet
20	38	63.3	406	1 I50375	homeotic protein 1
21	38	63.3	413	2 A54127	dolichyl-diphospho
22	38	63.3	414	2 A44654	dolichyl-diphospho
23	38	63.3	445	2 A45139	oligosaccharyltran
24	38	63.3	883	2 C86729	hypothetical prote
25	37	61.7	449	2 T15933	hypothetical prote
26	37	61.7	483	2 JC5743	matrix metalloprot
27	37	61.7	564	2 H86278	F14L17.20 protein
28	37	61.7	576	2 B86499	cr288 hypothetical
29	37	61.7	576	2 B72125	ct288 hypothetical

RESULT 1

A28153

Gelatinase A (EC 3.4.24.24) precursor - human

N;Alternate names: collagenase type IV; matrix metalloproteinase 2 (MMP2); progelatinase

C;Species: Homo sapiens (man)

C;Date: 28-Aug-1989 #sequence revision 07-Jul-1995 #text change 09-Jul-2004

C;Accession: A28153; A34202; A42225; A60187; S13858; S29436; A31480; S44432; A61498; S55

R;Collier, I.E.; Wilhelm, S.M.; Eisen, A.Z.; Marmer, B.L.; Grant, G.A.; Seltzer, J.L.; K

J. Biol. Chem. 263, 6579-6587, 1988

A;Title: H-ras oncogene-transformed human bronchial epithelial cells (TBE-1) secrete a s

A;Reference number: A28153; MUID:88198218; PMID:2834383

A;Accession: A28153

A;Molecule type: mRNA

A;Residues: 30-660 <COL>

A;Cross-references: UNIPROT:P08253; UNIPARC:UPI00000172CE7; GB:J03210; NID:g180670; PIDN:

R;Huhtala, P.; Eddy, R.L.; Fan, Y.S.; Byers, M.G.; Shows, T.B.; Tryggvason, K.

Genomics 6, 554-559, 1990

A;Title: Completion of the primary structure of the human type IV collagenase preproenzy

A;Reference number: A34202; MUID:90228972; PMID:2158484

A;Accession: A34202

A;Molecule type: DNA

A;Residues: 1-51 <HU2>

A;Cross-references: UNIPARC:UPI000016A6E3; GB:M33789; NID:g180600; PIDN:AAA52027.1; PID:

R;Huhtala, P.; Chow, L.T.; Tryggvason, K.

J. Biol. Chem. 265, 11077-11082, 1990

A;Title: Structure of the human type IV collagenase gene.

A;Reference number: A42225; MUID:90293047; PMID:2162831

A;Accession: A42225

A;Status: not compared with conceptual translation

A;Molecule type: DNA

A;Residues: 1-51,220-393 <HUH>

A;Cross-references: UNIPARC:UPI000016A6E3; UNIPARC:UPI00000172CE8; GB:M55593; GB:J05471;

A;Note: neither the complete amino acid nor the complete nucleotide sequence is given in

R;Frisch, S.M.; Reich, R.; Collier, I.E.; Genrich, L.T.; Martin, G.; Goldberg, G.I.

Oncogene 5, 75-83, 1990

A;Title: Adenovirus E1A represses protease gene expression and inhibits metastasis of hu

A;Reference number: A60187; MUID:90206614; PMID:2157183

A;Accession: A60187

A;Status: not compared with conceptual translation

A;Molecule type: DNA

A;Residues: 1-58 <PRI>

A;Cross-references: UNIPARC:UPI0000172CE9

R;Okada, Y.; Morodomi, T.; Enghild, J.J.; Suzuki, K.; Yasui, A.; Nakanishi, I.; Salvessen

Eur. J. Biochem. 194, 721-730, 1990

A;Title: Matrix metalloproteinase 2 from human rheumatoid synovial fibroblasts. Purifica

A;Reference number: S13858; MUID:91099351; PMID:2269296

A;Accession: S13858

A;Molecule type: protein

A;Residues: 30-45;110-124 <OKA>

A;Cross-references: UNIPARC:UPI00000172CEA; UNIPARC:UPI00000172CEB

R;Crabbe, T.; Ioannou, C.; Docherty, A.J.P.

Eur. J. Biochem. 218, 431-438, 1993

A;Title: Human progelatinase A can be activated by autolysis at a rate that is concentrated
A;Reference number: S39436; MUID:94094834; PMID:8269931
A;Accession: S39436
A;Molecule type: protein
A;Residues: 30-44;444-456 <CR2>
A;Cross-references: UNIPARC:UPI00000172CEC
R;Stetler-Stevenson, W.G.; Kruttsch, H.C.; Wachter, M.P.; Margulies, I.M.K.; Liotta, L.A.
J. Biol. Chem. 264, 1353-1356, 1989
A;Title: The activation of human type IV collagenase proenzyme. Sequence identification
A;Reference number: A31480; MUID:89109136; PMID:2536363
A;Accession: A31480
A;Molecule type: protein
A;Residues: 110-123 <STE>
A;Cross-references: UNIPARC:UPI0000159DA9
R;Crabbe, T.; Smith, B.; O'Connell, J.; Docherty, A.
FEBS Lett. 345, 14-16, 1994
A;Title: Human progelatinase A can be activated by matrixlysin.
A;Reference number: S44432; MUID:94252395; PMID:8194591
A;Accession: S44432
A;Molecule type: protein
A;Residues: 110-115 <CRA>
A;Cross-references: UNIPARC:UPI0000172CED
R;Brown, D.; Chwa, M.; Escobar, M.; Kenney, M.C.
Exp. Eye Res. 52, 5-16, 1991
A;Title: Characterization of the major matrix degrading metalloproteinase of human cornea
A;Reference number: A61498; MUID:91330998; PMID:1868885
A;Accession: A61498
A;Molecule type: protein
A;Residues: 'X', '31', 'X', '33-46', 'X', '48-50', 'O' <BRO>
A;Cross-references: UNIPARC:UPI0000172CEE
A;Experimental source: corneal stroma
R;Itch, Y.; Binner, S.; Nagase, H.
Biochem. J. 308, 645-651, 1995
A;Title: Steps involved in activation of the complex of pro-matrix metalloproteinase 2
A;Reference number: S55327; MUID:95290003; PMID:7772054
A;Accession: S55327
A;Molecule type: protein
A;Residues: 110-114 <ITO>
A;Cross-references: UNIPARC:UPI0000172CEF
C;Genetics:
A;Gene: GDB:MWP2; CLG4; CLG4A
A;Cross-references: GDB:120592; OMIM:120360
A;Map position: 16q13-16q13
A;Introns: 51/3; 127/2; 178/1; 220/1; 278/1; 336/1; 394/1; 446/1; 491/2; 537/1; 590/2; 6
C;Function:
A;Description: proteolytic cleavage of gelatin type I and collagen types IV, V, VII, and
C;Superfamily: gelatinase A; fibronectin type II repeat homology; hemopexin repeat homol
C;Keywords: extracellular matrix; fibroblast; glycoprotein; hydrolase; metalloproteinase
F;1-29/Domain: signal sequence #status predicted <SIG>
F;30-660/Product: progelatinase A #status predicted <PRO>
F;70-219,394-446/Domain: activation peptide #status predicted <ACT>
F;110-660/Product: gelatinase A #status predicted <MAT>
F;233-390/Region: collagen binding #status predicted
F;233-274/Domain: fibronectin type II repeat homology <2F1>
F;291-332/Domain: fibronectin type II repeat homology <2F8>
F;349-390/Domain: fibronectin type II repeat homology <2F9>
F;463-660/Domain: hemopexin repeat homology <PXN>
F;102,403,407,413/Binding site: zinc, catalytic (Cys, His, His) (inhibited) #status
F;403,407,413/Binding site: zinc, catalytic (His) (active) #status predicted
F;404/Active site: Glu #status predicted
F;573,642/Binding site: carbohydrate (Asn) (covalent) #status predicted
Query Match 100.0%; Score 60; DB 1; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.0055;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118

RESULT 4
S34780

RESULT 2
S70365
gelatinase A (EC 3.4.24.24) precursor - rabbit
N;Alternate names: matrix metalloproteinase-2; type IV collagenase
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 21-Apr-1997 #sequence_revision 09-May-1997 #text_change 09-Jul-2004
C;Accession: S70365
R;Matsumoto, S.; Katoh, M.; Watanabe, T.; Masubo, Y.
Biochim. Biophys. Acta 1307, 137-139, 1996
A;Title: Molecular cloning of rabbit matrix metalloproteinase-2 and its broad expression
A;Reference number: S70365; MUID:96283805; PMID:8679695
A;Accession: S70365
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-662 <MAT>
A;Cross-references: UNIPROT:P50757; UNIPARC:UPI000012F23F; EMBL:D63579; NID:G944816; PID:
C;Superfamily: gelatinase A; fibronectin type II repeat homology; hemopexin repeat homol
C;Keywords: hydrolase; metalloproteinase; zinc; zymogen
F;233-274/Domain: fibronectin type II repeat homology <2F1>
F;291-332/Domain: fibronectin type II repeat homology <2F2>
F;349-390/Domain: fibronectin type II repeat homology <2F9>
F;465-662/Domain: hemopexin repeat homology <PXN>
F;102,403,407,413/Binding site: zinc, catalytic (Cys, His, His) (inhibited) #status
F;403,407,413/Binding site: zinc, catalytic (His) (active) #status predicted
F;404/Active site: Glu #status predicted
Query Match 100.0%; Score 60; DB 2; Length 662;
Best Local Similarity 100.0%; Pred. No. 0.0055;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118

RESULT 3
A42496
gelatinase A (EC 3.4.24.24) precursor - mouse
N;Alternate names: collagenase type IV, 72K
C;Species: Mus musculus (house mouse)
C;Date: 04-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004
C;Accession: A42496
R;Reponen, P.; Sahlberg, C.; Huhtala, P.; Hurstainen, T.; Thesleff, I.; Tryggvason, K.
J. Biol. Chem. 267, 7856-7862, 1992
A;Title: Molecular cloning of murine 72-kDa type IV collagenase and its expression durin
A;Reference number: A42496; MUID:92218452; PMID:1373140
A;Accession: A42496
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-662 <REP>
A;Cross-references: UNIPROT:P33434; UNIPARC:UPI000002777E; GB:M84324; NID:gl98465; PIDN:/
A;Note: sequence extracted from NCBI backbone (NCBIN:96943, NCBIIP:96945)
C;Superfamily: gelatinase A; fibronectin type II repeat homology; hemopexin repeat homol
C;Keywords: hydrolase; metalloproteinase; zinc; zymogen
F;233-274/Domain: fibronectin type II repeat homology <2F1>
F;291-332/Domain: fibronectin type II repeat homology <2F8>
F;349-390/Domain: fibronectin type II repeat homology <2F9>
F;465-662/Domain: hemopexin repeat homology <PXN>
F;102,403,407,413/Binding site: zinc, catalytic (Cys, His, His) (inhibited) #status
F;403,407,413/Binding site: zinc, catalytic (His) (active) #status predicted
F;404/Active site: Glu #status predicted
Query Match 100.0%; Score 60; DB 2; Length 662;
Best Local Similarity 100.0%; Pred. No. 0.0055;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118

gelatinase A (EC 3.4.24.24) precursor - rat
N:Alternate names: collagenase type IV
C:Species: Rattus norvegicus (Norway rat)
C>Date: 22-Nov-1993 #sequence_revision 01-Dec-1995 #text_change 09-Jul-2004
C:Accession: S34780; S32525
R:Lovett, D.H.
submitted to the EMBL Data Library, June 1993
A:Reference number: S34780
A:Accession: S34780
A>Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-662 <LOV>
A:Cross-references: UNIPROT:P33436; UNIPARC:UPI000012F240; EMBL:X71466; NID:G911750; PID
R:Marti, H.P.; McNeil, L.; Davies, M.; Martin, J.; Lovett, D.H.
Biochem. J. 291, 441-446, 1993
A:Title: Homology cloning of rat 72 kDa type IV collagenase: cytokine and second-messeng
A:Reference number: S32525; MUID:93249363; PMID:7916617
A:Accession: S32525
A>Status: preliminary
A:Molecule type: mRNA
A:Residues: 'R', 27-662 <MAR>
A:Cross-references: UNIPARC:UPI0000175D90; EMBL:X71466
C:Superfamily: gelatinase A; fibronectin type II repeat homology; hemopexin repeat homol
C:Keywords: hydrolase; metalloproteinase; zinc; zymogen
F:233-274/Domain: fibronectin type II repeat homology <2F1>
F:291-332/Domain: fibronectin type II repeat homology <2F8>
F:349-390/Domain: fibronectin type II repeat homology <2F9>
F:465-662/Domain: hemopexin repeat homology <PXM>
F:102,403,407,413/Binding site: zinc, catalytic (Cys, His, His) (inhibited) #status
F:403,407,413/Binding site: zinc, catalytic (His) (active) #status predicted
F:404/Active site: Glu #status predicted

Query Match 100.0%; Score 60; DB 2; Length 662;
Best Local Similarity 100.0%; Pred. No. 0.0055;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
|||||
Db 109 NYNFFPRKPK 118

RESULT 5
S46492
gelatinase A (EC 3.4.24.24) precursor - chicken
C:Species: Gallus gallus (chicken)
C>Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C:Accession: S46492
R:Aimes, R.T.; French, D.L.; Quigley, J.P.
Biochem. J. 300, 729-736, 1994
A:Title: Cloning of a 72 kDa matrix metalloproteinase (gelatinase) from chicken embryo f
A:Reference number: S46492; MUID:94280397; PMID:8010954
A:Accession: S46492
A>Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-663 <AIM>
A:Cross-references: UNIPROT:Q90611; UNIPARC:UPI000012F23E; EMBL:U07775; NID:G504475; PID
A:Note: in the authors' translation 205-asp is shown after residue 201 and, consequentl
C:Superfamily: gelatinase A; fibronectin type II repeat homology; hemopexin repeat homol
C:Keywords: hydrolase; metalloproteinase; zinc; zymogen
F:67-216,391-443/Domain: matrix metalloproteinase homology #status atypical <MMP>
F:230-271/Domain: fibronectin type II repeat homology <2F1>
F:288-329/Domain: fibronectin type II repeat homology <2F8>
F:346-387/Domain: fibronectin type II repeat homology <2F9>
F:466-663/Domain: hemopexin repeat homology <PXM>
F:99,400,404,410/Binding site: zinc, catalytic (Cys, His, His) (inhibited) #status
F:400,404,410/Binding site: zinc, catalytic (His) (active) #status predicted
F:401/Active site: Glu #status predicted

Query Match 100.0%; Score 60; DB 1; Length 663;
Best Local Similarity 100.0%; Pred. No. 0.0055;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10

Db 106 NYNFFPRKPK 115
|||||
RESULT 6
A23715
gelatinase (EC 3.4.24.-) - chicken (fragments)
C:Species: Gallus gallus (chicken)
C>Date: 21-Feb-1992 #sequence_revision 21-Feb-1992 #text_change 21-Mar-1996
C:Accession: A23715
R:Chen, J.W.; Aimes, R.T.; Ward, G.R.; Youngleib, G.L.; Quigley, J.P.
J. Biol. Chem. 266, 5113-5121, 1991
A:Title: Isolation and characterization of a 70-kDa metalloprotease (gelatinase) that is
A:Reference number: A23715; MUID:91161603; PMID:1848240
A:Accession: A23715
A>Status: preliminary
A:Molecule type: protein
A:Residues: 1-31 <CHE>
A:Cross-references: UNIPARC:UPI000017C00A
C:Keywords: hydrolase; metalloproteinase

Query Match 80.0%; Score 48; DB 2; Length 31;
Best Local Similarity 88.9%; Pred. No. 0.038;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 2 NYNFFPRKPK 10
|||||
Db 16 NYNFFPRKPK 24

RESULT 7
F72430
NADP-reducing hydrogenase, subunit A - Thermotoga maritima (strain MSB8)
C:Species: Thermotoga maritima
C>Date: 11-Jun-1999 #sequence_revision 11-Jun-1999 #text_change 09-Jul-2004
C:Accession: F72430
R:Nelson, K.E.; Clayton, R.A.; Gill, S.R.; Gwinn, M.L.; Dodson, R.J.; Haft, D.H.; Hickey
Garrett, M.M.; Stewart, A.M.; Cotton, M.D.; Pratt, M.S.; Phillips, C.A.; Richardson, D.;
C.M.
Nature 399, 323-329, 1999
A:Title: Evidence for lateral gene transfer between Archaea and Bacteria from genome seq
A:Reference number: A72200; MUID:99287316; PMID:10360571
A:Accession: F72430
A>Status: preliminary
A:Molecule type: DNA
A:Residues: 1-176 <ARN>
A:Cross-references: UNIPROT:Q9WXM7; UNIPARC:UPI000000D3AC4; GB:AE001689; GB:AE0000512; NID
A:Experimental source: strain MSB8
C:Genetics:
A:Gene: TM0012
C:Superfamily: NADH dehydrogenase (ubiquinone) I chain E; NADH dehydrogenase (ubiquinone
C:Keywords: 2Fe-2S; metalloprotein
F:98,103,139,143/Binding site: 2Fe-2S cluster (Cys) (covalent) #status predicted

Query Match 66.7%; Score 40; DB 2; Length 176;
Best Local Similarity 77.8%; Pred. No. 6.1;
Matches 7; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2 NYNFFPRKPK 10
|||||
Db 82 NYNFFPRKPK 90

RESULT 8
H71086
hypothetical protein PH0957 - Pyrococcus horikoshii
C:Species: Pyrococcus horikoshii
C>Date: 14-Aug-1998 #sequence_revision 14-Aug-1998 #text_change 12-Jul-2004
C:Accession: H71086
R:Kawarabayashi, Y.; Sawada, M.; Horikawa, H.; Hino, Y.; Yamamoto, S.; Seki
M.; Okufuku, Y.; Funahashi, T.; Tanaka, T.; Kudoh, Y.; Yamazaki, J.; Kushida, N.; Oguchi
DNA Res. 5, 55-76, 1998
A:Title: Complete sequence and gene organization of the genome of a hyper-thermophilic a

A;Reference number: A71000; MUID:983444137; PMID:9679194
A;Accession: H71086
A;Status: preliminary; nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-121 <KAW>
A;Cross-references: UNIPROT:O58660; UNIPARC:UPI0000062F59; GB:AP000004; NID:G3236131; PID:
A;Experimental source: strain OT3
A;Note: this accession replaces an interim accession for a sequence replaced by GenBank
C;Genetics:
A;Gene: PH0957

Query Match 65.0%; Score 39; DB 2; Length 121;
Best Local Similarity 85.7%; Pred. No. 6.4; Mismatches 0; Indels 0; Gaps 0;
Matches 6; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRK 7
Db 52 NFNFFPR 58
|||:|
|:|:|

RESULT 9
S23802
homeotic protein lim-1 - African clawed frog
C;Species: Xenopus laevis (African clawed frog)
C;Date: 22-Nov-1993 #sequence_revision 03-Nov-1995 #text_change 09-Jul-2004
C;Accession: S23802
R;Taira, M.; Jamrich, M.; Good, P.J.; Dawid, I.B.
Genes Dev. 6, 356-366, 1992
A;Title: The LIM domain-containing homeo box gene Xlim-1 is expressed specifically in the
A;Reference number: S23802; MUID:92192449; PMID:1347750
A;Accession: S23802
A;Molecule type: mRNA
A;Residues: 1-403 <TAI>
A;Cross-references: UNIPROT:P29674; UNIPARC:UPI000012B658; EMBL:X63889; NID:G64829; PID:
C;Genetics:
A;Gene: lim-1
C;Superfamily: homeotic protein lim-1; homeobox homology; LIM metal-binding repeat homol
C;Keywords: DNA binding; duplication; embryo; homeobox; nucleus; transcription regulatio
F;4-54/Domain: LIM metal-binding repeat homology <LIM1>
F;63-117/Domain: LIM metal-binding repeat homology <LIM2>
F;180-236/Domain: homeobox homology <HOX>

Query Match 65.0%; Score 39; DB 1; Length 403;
Best Local Similarity 66.7%; Pred. No. 21; Mismatches 1; Indels 0; Gaps 0;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 NYNFFPRK 9
Db 291 NYDFFPQGP 299
|||:|
|:|:|

RESULT 10
G01507
LIM domain transcription factor LIM-1 - human
N;Alternate names: homeotic protein lim-1
C;Species: Homo sapiens (man)
C;Date: 21-Dec-1996 #sequence_revision 06-Jun-1997 #text_change 09-Jul-2004
C;Accession: G01507
R;Dong, W.
submitted to the EMBL Data Library, September 1994
A;Reference number: G07570
A;Accession: G01507
A;Status: translated from GB/EMBL/DBJ
A;Molecule type: mRNA
A;Residues: 1-404 <DON>
A;Cross-references: UNIPROT:P48742; UNIPARC:UPI000012B657; EMBL:U14755; NID:G549845; PID:
C;Genetics:
A;Gene: hlim-1
C;Superfamily: homeotic protein lim-1; homeobox homology; LIM metal-binding repeat homol
C;Keywords: DNA binding; duplication; embryo; homeobox; nucleus; transcription regulatio
F;4-54/Domain: LIM metal-binding repeat homology <LIM1>
F;63-117/Domain: LIM metal-binding repeat homology <LIM2>
F;181-237/Domain: homeobox homology <HOX>

Query Match 65.0%; Score 39; DB 2; Length 404;
Best Local Similarity 66.7%; Pred. No. 21; Mismatches 1; Indels 0; Gaps 0;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 NYNFFPRK 9
Db 290 NYDFFPQGP 298
|||:|
|:|:|

RESULT 11
I58187
homeotic protein lim-1 - rat
C;Species: Rattus sp. (rat)
C;Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 16-Jul-1999
C;Accession: I58187
R;Furuyama, T.; Inagaki, S.; Iwahashi, Y.; Takagi, H.
Neurosci. Lett. 170, 266-268, 1994
A;Title: Distribution of Rlim, an LIM homeodomain gene, in the rat brain.
A;Reference number: I58187; MUID:94336075; PMID:7914684
A;Accession: I58187
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: mRNA
A;Residues: 1-406 <RES>
A;Cross-references: UNIPARC:UPI0000021621; GB:S71523; NID:G559635; PIDN:AAC60696.1; PID:
C;Genetics:
A;Gene: lim-1
C;Superfamily: homeotic protein lim-1; homeobox homology; LIM metal-binding repeat homol
C;Keywords: DNA binding; duplication; embryo; homeobox; nucleus; transcription regulatio
F;4-54/Domain: LIM metal-binding repeat homology <LIM1>
F;63-117/Domain: LIM metal-binding repeat homology <LIM2>
F;181-237/Domain: homeobox homology <HOX>

Query Match 65.0%; Score 39; DB 1; Length 406;
Best Local Similarity 66.7%; Pred. No. 21; Mismatches 1; Indels 0; Gaps 0;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 NYNFFPRK 9
Db 292 NYDFFPQGP 300
|||:|
|:|:|

RESULT 12
I48186
homeotic protein lim-1 - golden hamster
N;Alternate names: homeotic protein lmx2
C;Species: Mesocricetus auratus (golden hamster)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-Jul-2004
C;Accession: I48186
R;Rudnick, A.; Ling, T.Y.; Odagiri, H.; Rutter, W.J.; German, M.S.
Proc. Natl. Acad. Sci. U.S.A. 91, 12203-12207, 1994
A;Title: Pancreatic beta cells express a diverse set of homeobox genes.
A;Reference number: I48185; MUID:95083670; PMID:7991607
A;Accession: I48186
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: mRNA
A;Residues: 1-406 <RES>
A;Cross-references: UNIPROT:P36199; UNIPARC:UPI0000021621; EMBL:X81407; NID:G587462; PID:
C;Genetics:
A;Gene: lmx2
C;Superfamily: homeotic protein lim-1; homeobox homology; LIM metal-binding repeat homol
C;Keywords: DNA binding; duplication; embryo; homeobox; nucleus; transcription regulatio
F;4-54/Domain: LIM metal-binding repeat homology <LIM1>
F;63-117/Domain: LIM metal-binding repeat homology <LIM2>
F;181-237/Domain: homeobox homology <HOX>

Query Match 65.0%; Score 39; DB 1; Length 406;
Best Local Similarity 66.7%; Pred. No. 21; Mismatches 1; Indels 0; Gaps 0;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 NYNFFPRK 9
Db 292 NYDFFPQGP 300
|||:|
|:|:|

Query Match 65.0%; Score 39; DB 1; Length 406;
Best Local Similarity 66.7%; Pred. No. 21;
Matches 6; Conservative 2; Mismatches 1; Gaps 0;

QY 1 NYNFFPRKP 9
|||:||||:
DB 292 NYDFFPQGP 300

RESULT 14
S55948
hypothetical protein YLR392c - yeast (Saccharomyces cerevisiae)
N;Alternate names: hypothetical protein L8084.13
C;Species: Saccharomyces cerevisiae
C;Date: 23-Aug-1995 #sequence_revision 19-Oct-1995 #text_change 09-Jul-2004
C;Accession: S55948; C36445
R;Du, Z.
submitted to the EMBL Data Library, January 1995
A;Description: The sequence of *S. cerevisiae* cosmid 8084.
A;Reference number: S55948
A;Accession: S55948
A;Molecule type: DNA
A;Residues: 1-518 <DUZ>
A;Cross-references: UNIPROT:P18634; UNIPARC:UPI00001387E7; EMBL:U19729; NID:g625097; PID:PI000001387E7
A;Experimental source: strain S288C (AB972)
R;Ackerman, S.H.; Tzagoloff, A.
J. Biol. Chem. 265, 9952-9959, 1990
A;Title: Atp10, a yeast nuclear gene required for the assembly of the mitochondrial F-1-F0
A;Reference number: A36445; MUID:90277691; PMID:2141026
A;Accession: C36445
A;Molecule type: DNA
A;Residues: 1-210 <ACK>
A;Cross-references: UNIPARC:UPI0000168B0F; GB:J05463; NID:g1431794; PIDN:AAB05631.1; PID:PI0000168B0F
A;Experimental source: strain D273-10B/A1
C;Genetics:
A;Cross-references: SGD:S0004384
A;Map position: 12R

Query Match 65.0%; Score 39; DB 2; Length 518;
Best Local Similarity 57.1%; Pred. No. 27;

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OM protein - protein search, using sw model

Run on: February 21, 2006, 18:31:04 ; Search time 100.263 Seconds
(without alignments)
70.368 Million cell updates/sec

Title: US-10-601-059-13
Perfect score: 60
Sequence: 1 NYNFFPRKPK 10

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 18

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 100%
Maximum Match 100%
Listing first 45 summaries

Database : UniProt 05.80.*
1: uniprot_sprot.*
2: uniprot_trembl.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	60	100.0	112	2	Q9NLT9 CANFA
2	60	100.0	223	2	Q4KLF6 XENLA
3	60	100.0	385	2	Q9TUL8 HORSE
4	60	100.0	559	2	Q7SYA5 XENLA
5	60	100.0	595	2	Q8GQ11 XENLA
6	60	100.0	632	2	Q9NLP6 CANFA
7	60	100.0	654	2	Q6U7G9 MELGA
8	60	100.0	655	2	Q5FVW8 XENTR
9	60	100.0	656	2	Q8UWZ3 XENLA
10	60	100.0	660	1	MMP2 HUMAN
11	60	100.0	660	2	Q51Y21 TUPGB
12	60	100.0	661	2	Q95JAA FIG
13	60	100.0	661	2	Q9GLE5 BOVIN
14	60	100.0	662	1	MMP2 MOUSE
15	60	100.0	662	1	MMP2 RABIT
16	60	100.0	662	1	MMP2 RAT
17	60	100.0	662	2	Q6GMM9 RAT
18	60	100.0	663	1	MMP2 CHICK

ALIGNMENTS

RESULT 1
Q9NLT9 CANFA
ID Q9NLT9 CANFA PRELIMINARY; PRT; 112 AA.
AC Q9NLT9
DT 01-OCT-2000 (TrEMBLrel. 15, Created)
DT 01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Matrix metalloproteinase-2 (Fragment).

GN Name=MMP-2;
OS Canis familiaris (Dog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Canidae;
OC Canis.
OX NCBI_TaxID=9615;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Fibroblasts;
RA Jahic H., Kitchell B.E., Paria B.C.;
RL Submitted (APR-1999) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF147750; AAF67001.1; -, mRNA.
DR HSSP; P08253; IGXD.
DR MEROPS; M10.003; -.
DR Ensembl; ENSCARG0000009421; Canis familiaris.
DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
DR GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR InterPro; IPR000794; Ketoacyl synth.
DR InterPro; IPR001818; Pept M10A_M12B.
DR Pfam; PF03933; Peptidase_M10_N1_1.
DR PROSITE; PS00606; B_KETOACYL_SYNTHASE; UNKNOWN_1.
DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
FT NON TER 1 112
FT NON TER 112 112
SQ SEQUENCE 112 AA; 12110 MW; 7FD7259CAACD9617 CRC64;

Query Match 100.0%; Score 60; DB 2; Length 112;
Best Local Similarity 100.0%; Pred. No. 0.0069;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
DB 103 NYNFFPRKPK 112
|||||
RESULT 2
Q4KLF6 XENLA
ID Q4KLF6 XENLA PRELIMINARY; PRT; 223 AA.
AC Q4KLF6; 2005 (TrEMBLrel. 31, Created)
DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE Hypothetical protein.
OS Xenopus laevis (African clawed frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipiloidea; Pipidae;
OC Xenopodinae; Xenopus; Xenopus.
OX NCBI_TaxID=8355;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Whole;
RX MEDLINE=22341132; PubMed=12454917; DOI=10.1002/dvdy.10174;
RA Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W.,
RA Richardson P.;
RT "Genetic and genomic tools for Xenopus research: The NIH Xenopus
RT initiative";
RL Dev. Dyn. 225:384-391 (2002).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Whole;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Haieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo A.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Rana S.S., Iqbalano N.A., Peters G.J., Abramson R.D., Mullany S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

RA Fahey J., Helton E., Kettelman M., Madan A., Rodrigues S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko I., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
 RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smallus D.E.,
 RA Schnurch A., Schein J.E., Jones S.J.M., Marra M.A.,
 RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences.",
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).

RN NUCLEOTIDE SEQUENCE.
 RP TISSUE=whole;
 RC
 RA Klein S., Gerhard D. S.;
 RL Submitted (JUL-2005) to the EMBL/GenBank/DBJ databases.
 RI EMBL: BC099241; AAH99241.1; -; mRNA.
 RD Hypochemical protein.
 RW
 SK SEQUENCE 223 AA: 25889 MW: AB81EA358ECD68F1 CRC64:
 SO

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Query Match      100.0%; Score 60; DB 2; Length 223;
Best Local Similarity 100.0%; Pred. NO. 0.014;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYNFFPRKPK 10
        |||||
Db       105 NYNFFPRKPY 114

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DD 100 NINETYFIVE 113

RESULT 3
Q9TUL8 HORSE
ID Q9TUL8 HORSE PRELIMINARY: PRT: 385 AA.

AC	Q9TUL8;
DT	01-MAY-2000 (TREMBlrel. 13, Created)
DT	01-MAY-2000 (TREMBlrel. 13, last sequence update)
DT	01-OCT-2003 (TREMBlrel. 25, last annotation update)
DE	Matrix metalloproteinase-2 (Fragment).
GN	Name=mmp-2;
OS	Equus caballus (Horse).
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC	Mammalia; Eutheria; Laurasiatheria; Perissodactyla; Equidae; Equus.
OX	NCBI_TaxID=9796;

[1]
 RP NUCLEOTIDE SEQUENCE.
 RP TISSUE=Hoof tissue;
 RC Kyaw-Tanner M.T., Mungall B.A., Pollitt C.C.;
 RA Submitted (JUN-1999) to the EMBL/GenBank/DBJ
 RL databases.
 RL EMBL: AJ243211, GenBank: AF5561, DDBJ: AF5561.
 RN

DR	HSP70; P08253.1; CKW.
DR	MEROPS; M10_003; -.
DR	GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
DR	GO; GO:0004222; F:metalloendopeptidase activity; IEA.
DR	GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR	InterPro; IPR000562; FN_Type_II.
DR	InterPro; IPR000585; Hemopexin.
DR	InterPro; IPR006026; Peptidase_M.
DR	InterPro; IPR001818; Pept_M10A_M12B.
DR	InterPro; IPR006025; Pept_M_Zn_BS.
DR	Pfam; PF00040; fn2; 3.
DR	Pfam; PF00413; Peptidase_M10; 1.
DR	PRINTS; PR00013; FNTYPEI_I.
DR	PRINTS; PR00138; MATRXIN.
DR	ProDom; PD000995; FN_Type_II; 3.
DR	SMART; SM00059; FN2; 3.
DR	SMART; SM00235; ZnMc; 1.
DR	PROSITE; PS00023; FIBRONECTIN_2; 3.
DR	PROSITE; PS00142; ZINC_PROTEASE; UNKNOWN_1.
FT	NON_TER 1
FT	NON_TER 385
FT	NON_TER 385
SQ	SEQUENCE 385 AA; 42946 MW; B36FBDAA38EA7072 CRC64;

Query Match	100.0%	Score 60;	DB 2;	Length 385;
Best Local Similarity	100.0%	Pred. No. 0.025;		
Matches 10:	Conservative	0;	Mismatches 0;	Indels 0;
	Gaps	0;		

[illegible]


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DR ProDom; PD000995; FN Type_II; 3.
DR SMART; SM00059; FN2; 3.
DR SMART; SM00120; HX; 2.
DR SMART; SM00235; ZNMC; 1.
DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
DR PROSITE; PS00023; FIBRONECTIN_2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC_PROTEASE; UNKNOWN_1.
SQ SEQUENCE 559 AA; 63084 MW; F27BD8AC59B4B52 CRC64;

Query Match 100.0%; Score 60; DB 2; Length 559;
Best Local Similarity 100.0%; Pred. No. 0.037;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
Db 105 NYNFFPRKPK 114
|||||
105 NYNFFPRKPK 114

RESULT 5
ID Q6GQI1 XENLA PRELIMINARY; PRT; 595 AA.
AC Q6GQI1;
DT 05-JUL-2004 (TrEMBLrel. 27, Created)
DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DE Mmp2-prov protein (Fragment).
GN Name=mmp2-prov;
OS Xenopus laevis (African clawed frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipidea; Pipidae;
OC Xenopodinae; Xenopus; Xenopus.
OX NCBI_TaxID=8355;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Spleen;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins P.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heish F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M.J., Ustin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McSwan F.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettaman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smallos D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Spleen;
RX MEDLINE=22341132; PubMed=12454917; DOI=10.1002/dvdy.10174;
RA Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W.,
RA Richardson P.;
RT "Genetic and genomic tools for Xenopus research: The NIH Xenopus
initiative.";
RL Dev. Dyn. 225:384-391(2002).
RN [3]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Spleen;
RA Klein S., Strausberg R.;
RL Submitted (JUN-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL; BC072762; AAH72762.1; mRNA.
GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.

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DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
DR GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR InterPro; IPR000562; FN Type_II.
DR InterPro; IPR000585; Hemopexin.
DR InterPro; IPR006026; Peptidase M.
DR InterPro; IPR001818; Pept M10A_M12B.
DR InterPro; IPR006025; Pept_M_Zn_BS.
DR Pfam; PF00040; fn2; 3.
DR Pfam; PF00045; Hemopexin; 3.
DR Pfam; PF00413; Peptidase_M10; 1.
DR Pfam; PF03933; Peptidase_M10_N; 1.
DR PRINTS; PR00013; FNTYPEII.
DR PRINTS; PR00138; MATRXIN.
DR ProDom; PD000995; FN Type_II; 3.
DR SMART; SM00059; FN2; 3.
DR SMART; SM00120; HX; 3.
DR SMART; SM00235; ZNMC; 1.
DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
DR PROSITE; PS00023; FIBRONECTIN_2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC_PROTEASE; UNKNOWN_1.
FT NON_TER 595
SQ SEQUENCE 595 AA; 67335 MW; 688556DF6039FF83 CRC64;

Query Match 100.0%; Score 60; DB 2; Length 595;
Best Local Similarity 100.0%; Pred. No. 0.04;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
Db 105 NYNFFPRKPK 114
|||||
105 NYNFFPRKPK 114

RESULT 6
ID Q9N1P6 CANFA PRELIMINARY; PRT; 632 AA.
AC Q9N1P6;
DT 01-OCT-2000 (TrEMBLrel. 15, Created)
DT 01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Matrix metalloproteinase-2 (Fragment).
GN Name=MMP-2;
OS Canis familiaris (Dog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Canidae;
OC Canis.
OX NCBI_TaxID=9615;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Fibrosarcoma;
RA Jahic H., Paria B., Balkin R., Baxendale V., Fang Y., Kitchell B.;
RL Submitted (AUG-1999) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF177217; AAF67517.1; mRNA.
DR HSP; P08253; 1GXD.
DR MEROPS; M10.003; -.
DR Ensembl; ENSCAFG00000009421; Canis familiaris.
DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
DR GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR InterPro; IPR000562; FN Type_II.
DR InterPro; IPR000585; Hemopexin.
DR InterPro; IPR006026; Peptidase M.
DR InterPro; IPR001818; Pept M10A_M12B.
DR InterPro; IPR006025; Pept_M_Zn_BS.
DR Pfam; PF00040; fn2; 3.
DR Pfam; PF00045; Hemopexin; 4.
DR Pfam; PF00413; Peptidase_M10; 1.
DR Pfam; PF03933; Peptidase_M10_N; 1.
DR PRINTS; PR00013; FNTYPEII.
DR PRINTS; PR00138; MATRXIN.
DR ProDom; PD000995; FN Type_II; 3.
DR SMART; SM00059; FN2; 3.
DR SMART; SM00120; HX; 4.

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DR SMART; SM00235; ZnMc; 1.
DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
DR PROSITE; PS00023; FIBRONECTIN_2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC_PROTEASE; UNKNOWN_1.
FT NON TER 1 1
SQ SEQUENCE 632 AA; 70991 MW; D8AE895497E129F3 CRC64;

Query Match 100.0%; Score 60; DB 2; Length 632;
Best Local Similarity 100.0%; Pred. No. 0.043;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
Db 81 NYNFFPRKPK 90

RESULT 7
Q6U7G9_MELGA
AC Q6U7G9;
ID Q6U7G9_MELGA PRELIMINARY; PRT; 654 AA.
DT 05-JUL-2004 (TrEMBLrel. 27, Created)
DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE Galatinase A.
OS Meleagris gallopavo (Common turkey).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Meleagris.
OX NCBI_TaxID=9103;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Monsonego Ornan E.; Tong A.;
RL Submitted (AUG-2003) to the EMBL/GenBank/DBJ databases.
DR EMBL; AY376899; AAQ98971.1; -; mRNA.
DR HSP; P08254; I83D.
DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
DR GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR InterPro; IPR000585; Hemopexin.
DR InterPro; IPR006026; Peptidase M.
DR InterPro; IPR001818; Pept M10A_M12B.
DR InterPro; IPR006025; Pept_M_Zn_BS.
DR Pfam; PF00040; fn2; 3.
DR Pfam; PF00045; Hemopexin; 3.
DR Pfam; PF00413; Peptidase M10; 1.
DR Pfam; PF03933; Peptidase M10_N; 1.
DR PRINTS; PR0013; FNTYPEII.
DR PRINTS; PR00138; MATRINX.
DR ProDom; PD000995; FN_Type_II; 3.
DR SMART; SM00120; HX; 4.
DR SMART; SM00120; HX; 4.
DR SMART; SM00235; ZnMc; 1.
DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
DR PROSITE; PS00023; FIBRONECTIN_2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC_PROTEASE; UNKNOWN_1.
SQ SEQUENCE 654 AA; 73956 MW; F9B0755F76B6F8DD CRC64;

Query Match 100.0%; Score 60; DB 2; Length 654;
Best Local Similarity 100.0%; Pred. No. 0.044;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
Db 106 NYNFFPRKPK 115

RESULT 8
Q5FVW8_XENTR
ID Q5FVW8_XENTR PRELIMINARY; PRT; 655 AA.
AC Q5FVW8;
DT 10-MAY-2005 (TrEMBLrel. 30, Created)

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DT 10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
DT 10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
DE MGCI08375 protein.
GN Name=MGCI08375;
OS Xenopus tropicalis (Western clawed frog) (Silurana tropicalis).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipidae; Pipidae;
OC Xenopodinae; Xenopus; Silurana.
OX NCBI_TaxID=8364;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Whole body;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner K.H., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullany S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettelman M., Madan A., Rodriguez S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Whole body;
RA Klein S., Gerhard D.S.;
RL Submitted (FEB-2005) to the EMBL/GenBank/DBJ databases.
DR EMBL; BC089734; AAH89734.1; -; mRNA.
DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
DR GO; GO:0008270; F:zinc ion binding; IEA.
DR GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR InterPro; IPR000562; FN_type2_col_bd.
DR InterPro; IPR000585; Hemopexin.
DR InterPro; IPR001818; Pept M10A_M12B.
DR InterPro; IPR006025; Pept M_Zn_BS.
DR InterPro; IPR006026; Peptidase_M.
DR InterPro; IPR002477; PGSD_1.
DR Pfam; PF00040; fn2; 3.
DR Pfam; PF00045; Hemopexin; 4.
DR Pfam; PF00413; Peptidase M10; 1.
DR Pfam; PF03933; Peptidase M10_N; 1.
DR PRINTS; PR0013; FNTYPEII.
DR PRINTS; PR00138; MATRINX.
DR ProDom; PD000995; FN_Type_II; 3.
DR SMART; SM00059; FN2; 3.
DR SMART; SM00120; HX; 4.
DR SMART; SM00235; ZnMc; 1.
DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
DR PROSITE; PS00023; FN2_1; 3.
DR PROSITE; PS1092; FN2_2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC_PROTEASE; 1.
KW Calcium; Hydrolase; Metal-binding; Metalloprotease; Protease; Zinc.
SQ SEQUENCE 655 AA; 74345 MW; 2AFD4C93786A625C CRC64;

Query Match 100.0%; Score 60; DB 2; Length 655;
Best Local Similarity 100.0%; Pred. No. 0.044;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
|||||

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RA Gusman H., Travis J., Helmerhorst E.J., Potempa J., Troxler R.F.,
RA Oppenheim F.G.;
RT "Salivary histatin 5 is an inhibitor of both host and bacterial
RT enzymes implicated in periodontal disease.";
RN Infect. Immun. 69:1402-1408(2001).
RN [8]
RP PROCESSING OF KISS1.
RX MEDLINE=22761370; PubMed=12879005; DOI=10.1038/sj.onc.1206542;
RA Takino T., Koshikawa N., Miyamori H., Tanaka M., Sasaki T., Okada Y.,
RA Seiki M., Sato H.;
RT "Cleavage of metastasis suppressor gene product KISS-1
RT protein/metastatin by matrix metalloproteinases.";
RN Oncogene 22:4617-4626(2003).
RN [9]
RX X-RAY CRYSTALLOGRAPHY (2.15 ANGSTROMS) OF 443-660.
RX MEDLINE=96069777; PubMed=7583664;
RA Libson A.M., Gittis A.G., Collier I.E., Marmer B.L., Goldberg G.I.,
RA Lattman E.E.;
RT "Crystal structure of the haemopexin-like C-terminal domain of
RT Gelatinase A.";
RN Nat. Struct. Biol. 2:938-942(1995).
RN [10]
RX X-RAY CRYSTALLOGRAPHY (2.6 ANGSTROMS) OF 458-660.
RX MEDLINE=96140723; PubMed=8549817; DOI=10.1016/0014-5793(95)01435-7;
RA Gohlke U., Gomis-Rueth F.-X., Crabbe T., Murphy G., Docherty A.J.,
RA Bode W.;
RT "The C-terminal (haemopexin-like) domain structure of human gelatinase
RT A (MMP2): structural implications for its function.";
RN FEBS Lett. 378:126-130(1996).
CC -1- FUNCTION: In addition to gelatin and collagens, it cleaves KISS1
CC at a Gly|-Leu bond.
CC -1- CATALYTIC ACTIVITY: Cleavage of gelatin type I and collagen types
CC IV, VII, X. Cleaves the collagen-like sequence Pro-Gln-Gly|-
CC Ile-Ala-Gly-Gln.
CC -1- COFACTOR: Binds 4 calcium ions per subunit.
CC -1- COFACTOR: Binds 2 zinc ions per subunit.
CC -1- ENZYME REGULATION: Inhibited by histatin-3 1/24 (histatin-5).
CC -1- SUBUNIT: Ligand for integrin alpha-v/beta-3.
CC -1- TISSUE SPECIFICITY: Produced by normal skin fibroblasts.
CC -1- PTM: The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-
CC MMP3).
CC -1- SIMILARITY: Belongs to the peptidase M10A family.
CC -1- SIMILARITY: Contains 3 fibronectin type-II domains.
CC -1- SIMILARITY: Contains 1 hemopexin-like domain.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC EMBL; J03210; AAA35701.1; -; mRNA.
CC EMBL; M33789; AAA52027.1; -; Genomic DNA.
CC EMBL; M55593; AAA52028.1; -; Genomic DNA.
CC EMBL; M58552; AAA52028.1; JOINED; Genomic DNA.
CC EMBL; M55582; AAA52028.1; JOINED; Genomic DNA.
CC EMBL; M55583; AAA52028.1; JOINED; Genomic DNA.
CC EMBL; M55584; AAA52028.1; JOINED; Genomic DNA.
CC EMBL; M55585; AAA52028.1; JOINED; Genomic DNA.
CC EMBL; M55586; AAA52028.1; JOINED; Genomic DNA.
CC EMBL; M55587; AAA52028.1; JOINED; Genomic DNA.
CC EMBL; M55588; AAA52028.1; JOINED; Genomic DNA.
CC EMBL; M55589; AAA52028.1; JOINED; Genomic DNA.
CC EMBL; M55590; AAA52028.1; JOINED; Genomic DNA.
CC EMBL; M55591; AAA52028.1; JOINED; Genomic DNA.
CC EMBL; M55592; AAA52028.1; JOINED; Genomic DNA.
CC EMBL; AY38117; AAU10089.1; -; Genomic DNA.
CC EMBL; BC002576; AAH02576.1; -; mRNA.
CC PIR; A28153; A28153.
CC PIR; 1CK7; X-ray; A=30-660.
CC PDB; 1CXW; NMR; A=278-336.
CC PDB; 1EAK; X-ray; A/B/C/D=32-452.
CC PDB; 1GEN; X-ray; @=443-660.

DR PDB; 1GXD; X-ray; A/B=30-660.
DR PDB; 1HOV; NMR; A=110-214.
DR PDB; 1J7M; NMR; A=337-394.
DR PDB; 1KSO; NMR; A=223-282.
DR PDB; 1QIB; X-ray; A=115-216.
DR PDB; 1RTG; X-ray; @=451-660.
DR MEROPS; M10.003; -;
DR Ensembl; ENSG00000087245; Homo sapiens.
DR HGNC; HGNC:7166; MMP2.
DR H-InvDB; HIX0013041; -;
DR MTM; 120360; -;
DR GO; GO:0005615; C:extracellular space; TAS.
DR GO; GO:0004228; F:gelatinase A activity; TAS.
DR GO; GO:0008270; F:zinc ion binding; TAS.
DR GO; GO:0006508; P:proteolysis and peptidolysis; TAS.
DR InterPro; IPR000562; FN type2 col_bd.
DR InterPro; IPR000585; Hemopexin.
DR InterPro; IPR001818; Pept_M10A_M12B.
DR InterPro; IPR006025; Pept_M_Zn_BS.
DR InterPro; IPR006026; Peptidase_M.
DR Pfam; PF00040; fn2; 3.
DR Pfam; PF00045; Hemopexin; 4.
DR Pfam; PF00413; Peptidase_M10; 1.
DR Pfam; PF03933; Peptidase_M10_N; 1.
DR PRINTS; PR00013; ENTPELI.
DR PRINTS; PR00136; MATRIKIN.
DR ProDom; PD000995; FN_Type_II; 3.
DR SMART; SM00059; FN2; 3.
DR SMART; SM00120; HX; 4.
DR SMART; SM00235; ZnMc; 1.
DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
DR PROSITE; PS00023; FN2_1; 3.
DR PROSITE; PS1092; FN2_2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC_PROTEASE; 1.
KW 3D-structure; Calcium; Collagen degradation;
KW Direct protein sequencing; Extracellular matrix; Glycoprotein;
KW Hydrolase; Metal-binding; Metalloprotease; Polymorphism; Protease;
KW Repeat; Signal; Zinc; Zymogen.
FT SIGNAL 1 29 Potential.
FT PROPEP 30 109 Activation peptide.
FT CHAIN 110 660 72 kDa type IV collagenase.
FT DOMAIN 228 276 Fibronectin type-II 1.
FT DOMAIN 286 334 Fibronectin type-II 2.
FT DOMAIN 344 392 Fibronectin type-II 3.
FT DOMAIN 466 660 Hemopexin-like.
FT REGION 110 221 Collagenase-like 1.

Query Match 100.0%; Score 60; DB 1; Length 660;

Best Local Similarity 100.0%; Pred. No. 0.045;

Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10

Db 109 NYNFFPRKPK 118

RESULT 11

Q51Y21_TUPGB

ID Q51Y21_TUPGB PRELIMINARY; PRT; 660 AA.

AC Q51Y21; 2005 (TrEMBLrel. 30, Created)

DT 10-MAY-2005 (TrEMBLrel. 30, Last sequence update)

DT 10-MAY-2005 (TrEMBLrel. 30, Last annotation update)

DE Matrix metalloproteinase 2.

OS Tupiaia glis belangeri (Common tree shrew).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Euarchontoglires; Scandentia; Tupaiidae; Tupaiia.

OX NCBI_TaxID=37347;

RN [1]

RP NUCLEOTIDE SEQUENCE.

RX PubMed=15621657; DOI=10.1080/10425170400012925;

RA Kenning M.S., Gentle A., McBrien N.A.;

```

RT "Expression and cDNA sequence of matrix metalloproteinase-2 (MMP-2) in
RL a mammalian model of human disease processes: Tupaia belangeri.";
DR EMBL; AY600958; AAT44903.1; -; mRNA.
DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
DR GO; GO:0008270; F:zinc ion binding; IEA.
DR GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR InterPro; IPR000562; FN type2_col_bd.
DR InterPro; IPR000585; Hemopexin.
DR InterPro; IPR001818; Pept_M10A_M12B.
DR InterPro; IPR006025; Pept_M_Zn_BS.
DR Pfam; PF00040; fn2; 3.
DR Pfam; PF00045; Hemopexin; 4.
DR Pfam; PF00413; Peptidase_M10_N; 1.
DR PRINTS; PR00013; FNTPPEII.
DR PRINTS; PR00138; MATRXIN.
DR ProDom; PD000995; FN Type_II; 3.
DR SMART; SM00120; HX; 4.
DR SMART; SM00235; ZnMc; 1.
DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
DR PROSITE; PS00023; FIBRONECTIN_2; 3.
DR PROSITE; PS1092; FN2_1; 2.
DR PROSITE; PS1092; FN2_2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC_PROTEASE; 1.
KW Calcium; Hydrolase; Metal-binding; Metalloprotease; Protease; Zinc.
SQ SEQUENCE 660 AA; 73871 MW; FC7EB8481091C5ED CRC64;

Query Match 100.0%; Score 60; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.045;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRPK 10
Db 109 NYNFFPRPK 118

RESULT 12
Q95JA4_PIG PRELIMINARY; PRT; 661 AA.
AC Q95JA4;
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Gelatinase A.
GN Name=MMP-2;
OS Sus scrofa (Pig).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
OC Sus.
OX NCBI_TaxID=9823;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Tooth enamel organ;
RX MEDLINE=21480581; PubMed=11597028;
RA Caron C., Xue J., Sun X., Simmer J.P., Bartlett J.D.;
RT "Gelatinase A (MMP-2) in developing tooth tissues and amelogenin
hydrolysis.";
RL J. Dent. Res. 80:1660-1664 (2001).
DR EMBL; AF295805; AAK971133.1; -; mRNA.
DR HSP; P08253; IGXD.
DR MEROPS; M10.003; -.
DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
DR GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR InterPro; IPR000562; FN Type II.
DR InterPro; IPR000585; Hemopexin.
DR InterPro; IPR006026; Peptidase M.
DR InterPro; IPR001818; Pept_M10A_M12B.
DR InterPro; IPR006025; Pept_M_Zn_BS.
DR Pfam; PF00040; fn2; 3.
DR Pfam; PF00045; Hemopexin; 4.
DR Pfam; PF00413; Peptidase_M10; 1.
DR Pfam; PF03933; Peptidase_M10_N; 1.
DR PRINTS; PR00013; FNTPPEII.
DR PRINTS; PR00138; MATRXIN.
DR ProDom; PD000995; FN Type_II; 3.
DR SMART; SM00120; HX; 4.
DR SMART; SM00235; ZnMc; 1.
DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
DR PROSITE; PS00023; FIBRONECTIN_2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC_PROTEASE; 1.
KW Metalloprotease; Protease.
SQ SEQUENCE 661 AA; 73776 MW; 90545F7645E5F84D CRC64;

Query Match 100.0%; Score 60; DB 2; Length 661;
Best Local Similarity 100.0%; Pred. No. 0.045;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRPK 10
Db 110 NYNFFPRPK 119

RESULT 13
Q9GLE5_BOVIN PRELIMINARY; PRT; 661 AA.
AC Q9GLE5;
DT 01-MAR-2001 (TrEMBLrel. 16, Created)
DT 01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Matrix metalloprotease 2.
OS Bos taurus (Bovine).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC Pecora; Bovidae; Bovinae; Bos.
OX NCBI_TaxID=9913;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Yan L., Zhang B., Tsang P., Fang J., Yu Y., Ingber D.E., Moses M.A.;
RL Submitted (JUL-2000) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF290428; AAG28169.1; -; mRNA.
DR HSP; P08253; IGXD.
DR MEROPS; M10.003; -.
DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
DR GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR InterPro; IPR000562; FN Type II.
DR InterPro; IPR000585; Hemopexin.
DR InterPro; IPR006026; Peptidase M.
DR InterPro; IPR001818; Pept_M10A_M12B.
DR InterPro; IPR006025; Pept_M_Zn_BS.
DR Pfam; PF00040; fn2; 3.
DR Pfam; PF00045; Hemopexin; 4.
DR Pfam; PF00413; Peptidase_M10; 1.
DR Pfam; PF03933; Peptidase_M10_N; 1.
DR PRINTS; PR00013; FNTPPEII.
DR PRINTS; PR00138; MATRXIN.
DR ProDom; PD000995; FN Type_II; 3.
DR SMART; SM00059; FN2; 3.
DR SMART; SM00120; HX; 4.
DR SMART; SM00235; ZnMc; 1.
DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
DR PROSITE; PS00023; FIBRONECTIN_2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC_PROTEASE; 1.
KW Metalloprotease; Protease.
SQ SEQUENCE 661 AA; 73669 MW; 41CD448BD72DC2 CRC64;

Query Match 100.0%; Score 60; DB 2; Length 661;
Best Local Similarity 100.0%; Pred. No. 0.045;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRPK 10
Db 110 NYNFFPRPK 119

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Qy 1 NYNFFPRPK 10
 Db 110 NYNFFPRPK 119

RESULT 14
 MMP2 MOUSE STANDARD; PRT; 662 AA.

AC P33434;
 DT 01-FEB-1994 (Rel. 28, Created)
 DT 01-FEB-1994 (Rel. 28, Last sequence update)
 DT 13-SEP-2005 (Rel. 48, Last annotation update)
 DE 72 kDa type IV collagenase precursor (EC 3.4.24.24) (72 kDa
 DE Gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A).
 GN Name=Mmp2;
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
 OC Muroidae; Muridae; Murinae; Mus.
 OX NCBI_TaxID=10090;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=92218452; PubMed=1373140;
 RA Reponen P., Sahlberg C., Huhtala P., Hurstainen T., Thesleff I.,
 RA Tryggvason K.;
 RT "Molecular cloning of murine 72-kDa type IV collagenase and its
 RT expression during mouse development.";
 RL J. Biol. Chem. 267:7856-7862(1992).
 RN [2]
 RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
 RC STRAIN=C57BL/6; TISSUE=Brain;
 RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
 RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heide F.,
 RA Datchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.J., Ustin T.B., Toshiyuki S., Carninci P., Prange C.,
 RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullaby S.J.,
 RA Besak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
 RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Fahey J., Helton E., Kettelman M., Madan A., Rodriguez S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
 RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smallos D.E.,
 RA Schnerch A., Schein J.B., Jones S.J.M., Marra M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences.";
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 RN [3]
 RP DEVELOPMENTAL STAGE.
 RC TISSUE=Embryo;
 RX PubMed=274464;
 RA Brenner C.A., Adler R.R., Rappolee D.A., Pedersen R.A., Werb Z.;
 RT "Genes for extracellular-matrix-degrading metalloproteinases and their
 RT inhibitor, TIMP, are expressed during early mammalian development.";
 RL Genes Dev. 3:848-859(1989).
 CC -1- CATALYTIC ACTIVITY: Cleavage of gelatin type I and collagen types
 CC IV, V, VII, X. Cleaves the collagen-like sequence Pro-Gln-Gly-[
 CC Ile-Ala-Gly-Gln.
 CC -1- COFACTOR: Binds 4 calcium ions per subunit (By similarity).
 CC -1- COFACTOR: Binds 2 zinc ions per subunit (By similarity).
 CC -1- SUBUNIT: Ligand for integrin alpha-v/beta-3.
 CC -1- DEVELOPMENTAL STAGE: Present in unfertilized eggs and at the
 CC zygote and cleavage stages. Levels increase at the blastocyst
 CC stage and with endometrial differentiation.
 CC -1- PM: The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-
 CC MMP3) (By similarity).
 CC -1- SIMILARITY: Belongs to the peptidase M10A family.

CC CC -1- SIMILARITY: Contains 3 fibronectin type-II domains.
 CC CC -1- SIMILARITY: Contains 1 hemopexin-like domain.
 CC CC -----
 CC CC This Swiss-Prot entry is copyright. It is produced through a collaboration
 CC CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
 CC CC the European Bioinformatics Institute. There are no restrictions on its
 CC CC use as long as its content is in no way modified and this statement is not
 CC CC removed.
 CC CC -----
 CC DR EMBL; M84324; AAA39338.1; -; mRNA.
 CC DR EMBL; BC070430; AAH70430.1; -; mRNA.
 CC DR PIR; A42496; A42496.
 CC DR HSP; P08253; IRTG.
 CC DR MEROPS; M10.003; -;
 CC DR Ensembl; ENSMUSG00000031740; Mus musculus.
 CC DR MGI; MGI:97009; Mmp2.
 CC DR GO; GO:0005615; C:extracellular space; TAS.
 CC DR InterPro; IPR000562; FN type2 col_bd.
 CC DR InterPro; IPR000585; Hemopexin.
 CC DR InterPro; IPR001818; Pept_M10A_M12B.
 CC DR InterPro; IPR006025; Pept_M_Zn_BS.
 CC DR InterPro; IPR006026; Peptidase_M.
 CC DR Pfam; PF00040; fn2; 3.
 CC DR Pfam; PF00045; Hemopexin; 4.
 CC DR Pfam; PF00413; Peptidase_M10; 1.
 CC DR Pfam; PF03933; Peptidase_M10_N; 1.
 CC DR PRINTS; PR00013; FNTYPEII.
 CC DR PRINTS; PR00138; MATRIXIN.
 CC DR ProDom; PD000995; FN_Type_II; 3.
 CC DR SMART; SM00059; FN2; 3.
 CC DR SMART; SM00120; HX; 4.
 CC DR SMART; SM00235; ZnMc; 1.
 CC DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
 CC DR PROSITE; PS00023; FN2_1; 3.
 CC DR PROSITE; PS1092; FN2_2; 3.
 CC DR PROSITE; PS00024; HEMOPEXIN; 1.
 CC DR PROSITE; PS00142; ZINC_PROTEASE; 1.
 CC KW Calcium; Collagen degradation; Extracellular matrix; Glycoprotein;
 CC KW Hydrolase; Metal-binding; Metalloprotease; Protease; Repeat; Signal;
 CC KW Zinc; Zymogen.
 CC FT SIGNAL 1 29 Potential.
 CC FT PROPEP 30 109 Activation peptide.
 CC FT CHAIN 110 662 72 kDa type IV collagenase.
 CC FT DOMAIN 228 276 Fibronectin type-II 1.
 CC FT DOMAIN 286 334 Fibronectin type-II 2.
 CC FT DOMAIN 344 392 Fibronectin type-II 3.
 CC FT DOMAIN 468 662 Hemopexin-like.
 CC FT REGION 110 221 Collagenase-like 1.
 CC FT REGION 222 396 Collagen-binding.
 CC FT REGION 397 467 Collagenase-like 2.
 CC FT ACT_SITE 404 404 By similarity.
 CC FT METAL 134 134 Calcium 1 (By similarity).
 CC FT METAL 168 168 Calcium 2 (By similarity).
 CC FT METAL 178 178 Zinc 1 (By similarity).
 CC FT METAL 180 180 Zinc 1 (By similarity).
 CC FT METAL 185 185 Calcium 3 (By similarity).
 CC FT METAL 186 186 Calcium 3 (via carbonyl oxygen) (By
 CC FT similarity).
 CC FT METAL 193 193 Zinc 1 (By similarity).
 CC FT METAL 200 200 Calcium 2 (via carbonyl oxygen) (By
 CC FT similarity).
 CC FT METAL 202 202 Calcium 2 (via carbonyl oxygen) (By
 CC FT similarity).
 CC FT METAL 204 204 Calcium 2 (By similarity).
 CC FT METAL 206 206 Zinc 1 (By similarity).
 CC FT METAL 208 208 Calcium 3 (By similarity).
 CC FT METAL 209 209 Calcium 1 (By similarity).
 CC FT METAL 211 211 Calcium 3 (By similarity).
 CC FT METAL 403 403 Zinc 2 (catalytic) (By similarity).
 CC FT METAL 407 407 Zinc 2 (catalytic) (By similarity).
 CC FT METAL 413 413 Zinc 2 (catalytic) (By similarity).
 CC FT METAL 478 478 Calcium 4 (via carbonyl oxygen) (By
 CC FT similarity).

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FT METAL 523 Calcium 4 (via carbonyl oxygen) (By
FT FT similarity).
FT METAL 571 Calcium 4 (via carbonyl oxygen) (By
FT FT similarity).
FT METAL 620 Calcium 4 (via carbonyl oxygen) (By
FT FT similarity).
FT SITE 102 Cysteine switch (Potential).
FT CARBOHYD 575 N-linked (GlcNAc. .) (Potential).
FT CARBOHYD 644 N-linked (GlcNAc. .) (Potential).
FT DISULFID 471 By similarity.
SQ SEQUENCE 662 AA; 74102 MW; C630A7DBDB272F02 CRC64;

Query Match 100.0%; Score 60; DB 1; Length 662;
Best Local Similarity 100.0%; Pred. No. 0.045;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118

RESULT 15
MMP2_RABIT STANDARD; PRT; 662 AA.
ID _MMP2_RABIT
AC P50757;
DT 01-OCT-1996 (Rel. 34, Created)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE 72 kDa type IV collagenase precursor (EC 3.4.24.24) (72 kDa
DE gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A).
GN Name=MMP2;
OS Oryctolagus cuniculus (Rabbit).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Lagomorpha; Leporidae;
OC Oryctolagus.
OX NCBI_TaxID=9986;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=Japanese white; TISSUE=Articular joint;
RX MEDLINE=96283805; PubMed=8679695; DOI=10.1016/0167-4781(96)00050-4;
RA Matsumoto S., Katoh M., Watanabe T., Masuho Y.;
RT "Molecular cloning of rabbit matrix metalloproteinase-2 and its broad
RT expression at several tissues.";
RL Biochim. Biophys. Acta 1307:137-139(1996).
CC -1- CATALYTIC ACTIVITY: Cleavage of gelatin type I and collagen types
CC IV, V, VII, X. Cleaves the collagen-like sequence Pro-Gln-Gly-|-
CC Ile-Ala-Gly-Gln.
CC -1- COFACTOR: Binds 4 calcium ions per subunit (By similarity).
CC -1- COFACTOR: Binds 2 zinc ions per subunit (By similarity).
CC -1- SUBUNIT: Ligand for integrin alpha-V/beta-3.
CC -1- PTM: The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-
CC MMP3) (By similarity).
CC -1- SIMILARITY: Belongs to the peptidase M10A family.
CC -1- SIMILARITY: Contains 3 fibronectin type-II domains.
CC -1- SIMILARITY: Contains 1 hemopexin-like domain.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC EMBL; D63579; BAA09796.1; -; mRNA.
CC PIR; S70365; S70365.
CC HSSP; P08253; 1QIB.
CC MEROPS; M10.003; -.
CC InterPro; IPR000562; FN type2_col_bd.
CC InterPro; IPR000585; Hemopexin
CC InterPro; IPR001818; Pept_M10A_M12B.
CC InterPro; IPR006025; Pept_M_Zn_BS.
CC InterPro; IPR006026; Peptidase_M.
CC Pfam; PF00040; fn2; 3.
CC Pfam; PF00045; Hemopexin; 4.

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DR Pfam; PF00413; Peptidase_M10; 1.
DR Pfam; PF03933; Peptidase_M10_N; 1.
DR PRINTS; PR00013; ENTYPRII.
DR PRINTS; PR00138; MATRIKIN.
DR ProDom; PD000995; FN_Type_II; 3.
DR SMART; SM00059; FN2; 3.
DR SMART; SM00120; HX; 4.
DR SMART; SM00235; ZmG; 1.
DR PROSITE; PS00546; CYSTRINE_SWITCH; 1.
DR PROSITE; PS00023; FN2_1; 3.
DR PROSITE; PS1092; FN2_2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC_PROTEASE; 1.
KW Calcium; Collagen degradation; Extracellular matrix; Glycoprotein;
KW Hydrolase; Metal-binding; Metalloprotease; Protease; Repeat; Signal;
KW Zinc; Zymogen.
FT SIGNAL 1 29 Potential.
FT PROPEP 30 109 Activation peptide.
FT CHAIN 110 662 72 kDa type IV collagenase.
FT DOMAIN 228 276 Fibronectin type-II 1.
FT DOMAIN 286 334 Fibronectin type-II 2.
FT DOMAIN 344 392 Fibronectin type-II 3.
FT DOMAIN 468 662 Hemopexin-like.
FT REGION 110 221 Collagenase-like 1.
FT REGION 222 396 Collagen-binding.
FT REGION 397 467 Collagenase-like 2.
FT ACT_SITE 404 404 By similarity.
FT METAL 134 134 Calcium 1 (By similarity).
FT METAL 168 168 Calcium 2 (By similarity).
FT METAL 178 178 Zinc 1 (By similarity).
FT METAL 180 180 Zinc 1 (By similarity).
FT METAL 185 185 Calcium 3 (By similarity).
FT METAL 186 186 Calcium 3 (via carbonyl oxygen) (By
FT METAL similarity).
FT METAL 193 193 Zinc 1 (By similarity).
FT METAL 200 200 Calcium 2 (via carbonyl oxygen) (By
FT METAL similarity).
FT METAL 202 202 Calcium 2 (via carbonyl oxygen) (By
FT METAL similarity).
FT METAL 204 204 Calcium 2 (By similarity).
FT METAL 206 206 Zinc 1 (By similarity).
FT METAL 208 208 Calcium 3 (By similarity).
FT METAL 209 209 Calcium 1 (By similarity).
FT METAL 211 211 Calcium 3 (By similarity).
FT METAL 403 403 Zinc 2 (catalytic) (By similarity).
FT METAL 407 407 Zinc 2 (catalytic) (By similarity).
FT METAL 413 413 Zinc 2 (catalytic) (By similarity).
FT METAL 478 478 Calcium 4 (via carbonyl oxygen) (By
FT METAL similarity).
FT METAL 523 523 Calcium 4 (via carbonyl oxygen) (By
FT METAL similarity).
FT METAL 571 571 Calcium 4 (via carbonyl oxygen) (By
FT METAL similarity).
FT METAL 620 620 Calcium 4 (via carbonyl oxygen) (By
FT METAL similarity).
FT SITE 102 102 Cysteine switch (Potential).
FT CARBOHYD 575 575 N-linked (GlcNAc. .) (Potential).
FT CARBOHYD 644 644 N-linked (GlcNAc. .) (Potential).
FT DISULFID 471 662 By similarity.
SQ SEQUENCE 662 AA; 73803 MW; 1CC246B270E440C8 CRC64;

Query Match 100.0%; Score 60; DB 1; Length 662;
Best Local Similarity 100.0%; Pred. No. 0.045;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118

RESULT 16
MMP2_RAT STANDARD; PRT; 662 AA.
ID _MMP2_RAT

```

AC P33436; P97581;
 DT 01-FEB-1994 (Rel. 28, Created)
 DT 01-FEB-1994 (Rel. 28, Last sequence update)
 DT 13-SEP-2005 (Rel. 48, Last annotation update)
 DE 72 kDa type IV collagenase precursor (EC 3.4.24.24) (72 kDa
 DE gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A).
 GN Name=Mmp2;
 OS Rattus norvegicus (Rat).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
 OC Muridea; Muridae; Murinae; Rattus.
 OX NCBI_TaxID=10116;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=93249363; PubMed=7916617;
 RA Marti H.P., McNeil L., Davies M., Martin J., Lovett D.H.;
 RT "Homology cloning of rat 72 kDa type IV collagenase: cytokine and
 RT second-messenger inducibility in glomerular mesangial cells.";
 RL Biochem. J. 291:441-446(1993).
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=Wistar; TISSUE=Skin;
 RA Okada A., Basset P.;
 RT "The cloning of the cDNA encoding rat gelatinase A from a rat skin
 RT wound cDNA library.";
 RL Submitted (JUL-1996) to the EMBL/GenBank/DBJ databases.
 CC -1- CATALYTIC ACTIVITY: Cleavage of gelatin type I and collagen types
 CC IV, V, VII, X. Cleaves the collagen-like sequence Pro-Gln-Gly-[
 CC Ile-Ala-Gly-Gln.
 CC -1- COFACTOR: Binds 4 calcium ions per subunit (By similarity).
 CC -1- COFACTOR: Binds 2 zinc ions per subunit (By similarity).
 CC -1- SUBUNIT: Ligand for integrin alpha-v/beta-3.
 CC -1- PTM: The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-
 CC MMP3) (By similarity).
 CC -1- SIMILARITY: Belongs to the peptidase M10A family.
 CC -1- SIMILARITY: Contains 3 fibronectin type-II domains.
 CC -1- SIMILARITY: Contains 1 hemopexin-like domain.
 CC -----
 CC This Swiss-Prot entry is copyright. It is produced through a collaboration
 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
 CC the European Bioinformatics Institute. There are no restrictions on its
 CC use as long as its content is in no way modified and this statement is not
 CC removed.
 CC -----
 DR EMBL; X71466; CAA50583.1; -; mRNA.
 DR EMBL; U65656; AAB41692.1; -; mRNA.
 DR PIR; S34780; S34780.
 DR HSP; P08253; IRTG.
 DR MEROPS; M10.003; -.
 DR RGD; 621316; Mmp2.
 DR GO; GO:0004228; F:gelatinase A activity; IDA.
 DR GO; GO:008237; F:metallopeptidase activity; TAS.
 DR InterPro; IPR000562; FN_type2_col_bd.
 DR InterPro; IPR000585; Hemopexin.
 DR InterPro; IPR01818; Pept_M10A_M12B.
 DR InterPro; IPR06025; Pept_M_Zn_BS.
 DR InterPro; IPR06026; Peptidase_M.
 DR Pfam; PF00040; fn2; 3.
 DR Pfam; PF00045; Hemopexin; 4.
 DR Pfam; PF00413; Peptidase_M10; 1.
 DR Pfam; PF03933; Peptidase_M10_N; 1.
 DR PRINTS; PR00013; FNTYPEII.
 DR PRINTS; PR00138; MATRINXIN.
 DR ProDom; PD000995; FN_Type_II; 3.
 DR SMART; SM00059; FN2; 3.
 DR SMART; SM00120; HX; 4.
 DR SMART; SM00235; ZnMc; 1.
 DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
 DR PROSITE; PS00023; FN2_1; 3.
 DR PROSITE; PS51092; FN2_2; 3.
 DR PROSITE; PS00024; HEMOPEXIN; 1.
 DR PROSITE; PS00142; ZINC_PROTEASE; 1.
 KW Calcium; Collagen degradation; Extracellular matrix; Glycoprotein;

KW Hydrolase; Metal-binding; Metalloprotease; Protease; Repeat; Signal;
 KW Zinc; Zymogen.
 FT SIGNAL 1 29 Potential.
 FT PROPEP 30 109 Activation peptide.
 FT CHAIN 110 662 72 kDa type IV collagenase.
 FT DOMAIN 228 276 Fibronectin type-II 1.
 FT DOMAIN 286 334 Fibronectin type-II 2.
 FT DOMAIN 344 392 Fibronectin type-II 3.
 FT DOMAIN 468 662 Hemopexin-like.
 FT REGION 110 221 Collagenase-like 1.
 FT REGION 222 396 Collagen-binding.
 FT REGION 397 467 Collagenase-like 2.
 FT ACT_SITE 404 404 By similarity.
 FT METAL 134 134 Calcium 1 (By similarity).
 FT METAL 168 168 Calcium 2 (By similarity).
 FT METAL 178 178 Zinc 1 (By similarity).
 FT METAL 180 180 Zinc 1 (By similarity).
 FT METAL 185 185 Calcium 3 (By similarity).
 FT METAL 186 186 Calcium 3 (via carbonyl oxygen) (By
 FT similarity).
 FT METAL 193 193 Zinc 1 (By similarity).
 FT METAL 200 200 Calcium 2 (via carbonyl oxygen) (By
 FT similarity).
 FT METAL 202 202 Calcium 2 (via carbonyl oxygen) (By
 FT similarity).
 FT METAL 204 204 Calcium 2 (By similarity).
 FT METAL 206 206 Zinc 1 (By similarity).
 FT METAL 208 208 Calcium 3 (By similarity).
 FT METAL 209 209 Calcium 1 (By similarity).
 FT METAL 211 211 Calcium 3 (By similarity).
 FT METAL 403 403 Zinc 2 (catalytic) (By similarity).
 FT METAL 407 407 Zinc 2 (catalytic) (By similarity).
 FT METAL 413 413 Zinc 2 (catalytic) (By similarity).
 FT METAL 478 478 Calcium 4 (via carbonyl oxygen) (By
 FT similarity).
 FT METAL 523 523 Calcium 4 (via carbonyl oxygen) (By
 FT similarity).
 FT METAL 571 571 Calcium 4 (via carbonyl oxygen) (By
 FT similarity).
 FT METAL 620 620 Calcium 4 (via carbonyl oxygen) (By
 FT similarity).
 FT SITE 102 102 Cysteine switch (Potential).
 FT CARBOHYD 575 575 N-linked (GlcNAc...) (Potential).
 FT DISULFID 471 662 N-linked (GlcNAc...) (Potential).
 FT CONFLICT 42 42 By similarity.
 FT CONFLICT 286 286 A -> S (in Ref. 2).
 FT CONFLICT 286 286 A -> G (in Ref. 2).
 FT CONFLICT 369 369 N -> S (in Ref. 2).
 FT CONFLICT 435 435 H -> N (in Ref. 2).
 FT CONFLICT 586 586 A -> S (in Ref. 2).
 SQ SEQUENCE 662 AA; 74182 MW; 7496B34B0A21884B CRC64;
 Query Match 100.0%; Score 60; DB 1; Length 662;
 Best Local Similarity 100.0%; Pred. No. 0.045;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Qy 1 NYNFFPRKPK 10
 Db 109 NYNFFPRKPK 118
 RESULT 17
 Q6GMW9 RAT PRELIMINARY; PRT; 662 AA.
 ID Q6GMW9 RAT
 AC Q6GMW9;
 DT 05-JUL-2004 (TrEMBLrel. 27, Created)
 DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
 DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
 DE Mmp2 protein.
 DE Name=Mmp2;
 OS Rattus norvegicus (Rat).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;

OC Muroidea; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Lung;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strauberg R.L., Feingold B.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Wax S.I., Wang J., Hsieh F.,
RA Datchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettelman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalhus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Lung;
RG NIH MGC Project;
RL Submitted (JUN-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL; BC074013; AAH74013.1; -; mRNA.
DR GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
DR GO; GO:0004222; F:metalloendopeptidase activity; IEA.
DR GO; GO:0008270; F:zinc ion binding; IEA.
DR GO; GO:0006508; F:proteolysis and peptidolysis; IEA.
DR InterPro; IPR000562; FN_type2_col_bd.
DR InterPro; IPR000585; Hemoexin.
DR InterPro; IPR001818; Pept_M10A_M12B.
DR InterPro; IPR006025; Pept_M_Zn_BS.
DR Pfam; PF00040; fn2_3.
DR Pfam; PF00045; Hemoexin; 4.
DR Pfam; PF00413; Peptidase_M10; 1.
DR Pfam; PF03933; Peptidase_M10_N; 1.
DR PRINTS; PR00013; FNTYPEII.
DR SMART; SM00138; MATRIKIN.
DR SMART; SM00059; FN2_3.
DR SMART; SM00120; HX; 4.
DR SMART; SM00235; ZnMc; 1.
DR PROSITE; PS00546; CYSTEINE_SWITCH; 1.
DR PROSITE; PS00023; FN2_1; 3.
DR PROSITE; PS1092; FN2_2; 3.
DR PROSITE; PS00024; HEMOPEXIN; 1.
DR PROSITE; PS00142; ZINC_PROTEASE; 1.
KW Calcium; Hydrolase; Metal-binding; Metalloprotease; Protease; Zinc.
SQ SEQUENCE 662 AA; 74149 MW; C56BD787473FC03E CRC64;

Query Match 100.0%; Score 60; DB 2; Length 662;
Best Local Similarity 100.0%; Pred. No. 0.045;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118
|||||

RESULT 18
MMP2_CHICK
ID _MMP2_CHICK STANDARD; PRT; 663 AA.
AC Q90611;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)

DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE 72 kDa type IV collagenase precursor (EC 3.4.24.24) (72 kDa
DE gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A).
GN Name=MMP2;
OS Gallus gallus (Chicken).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC Gallus.
OX NCBI_TaxID=9031;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Embryo;
RX MEDLINE=94280397; PubMed=8010954;
RA Aimes R.T., French D.L., Quigley J.P.;
RT "Cloning of a 72 kDa matrix metalloproteinase (gelatinase) from
RT chicken embryo fibroblasts using gene family PCR: expression of the
RT gelatinase increases upon malignant transformation.";
RL Biochem. J. 300:729-736(1994).
RN [2]
RP PROTEIN SEQUENCE OF 27-41 AND 107-122.
RX MEDLINE=91161603; PubMed=1848240;
RA Chen J.-M., Aimes R.T., Ward G.R., Youngleib G.L., Quigley J.P.;
RT "Isolation and characterization of a 70-kDa metalloprotease
RT (gelatinase) that is elevated in Rous sarcoma virus-transformed
RT chicken embryo fibroblasts.";
RL J. Biol. Chem. 266:5113-5121(1991).
CC -1- CATALYTIC ACTIVITY: Cleavage of gelatin type I and collagen types
CC IV, V, VII, X. Cleaves the collagen-like sequence Pro-Gln-Gly-|-
CC Ile-Ala-Gly-Gln.
CC -1- COFACTOR: Binds 4 calcium ions per subunit (By similarity).
CC -1- COFACTOR: Binds 2 zinc ions per subunit (By similarity).
CC -1- SUBUNIT: Ligand for integrin alpha-V/beta-3.
CC -1- TISSUE SPECIFICITY: Produced by normal skin fibroblasts.
CC -1- PTM: The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-
CC MMP3) (By similarity).
CC -1- SIMILARITY: Belongs to the peptidase M10A family.
CC -1- SIMILARITY: Contains 3 fibronectin type-II domains.
CC -1- SIMILARITY: Contains 1 hemoexin-like domain.
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL Outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC EMBL; U07775; AAA19596.1; -; mRNA.
CC PIN; S46492; S46492.
CC HSSP; P08253; 1QIB.
CC MEROPS; M10.003; -.
CC Ensembl; ENSGALG00000003580; Gallus gallus.
CC InterPro; IPR000562; FN_type2_col_bd.
CC InterPro; IPR000585; Hemoexin.
CC InterPro; IPR001818; Pept_M10A_M12B.
CC InterPro; IPR006025; Pept_M_Zn_BS.
CC InterPro; IPR006026; Peptidase_M.
CC Pfam; PF00040; fn2_3.
CC Pfam; PF00045; Hemoexin; 4.
CC Pfam; PF00413; Peptidase_M10; 1.
CC Pfam; PF03933; Peptidase_M10_N; 1.
CC PRINTS; PR00013; FNTYPEII.
CC PRINTS; PR00138; MATRIKIN.
CC ProDom; PD000095; FN_Type_II; 3.
CC SMART; SM00059; FN2_3.
CC SMART; SM00120; HX; 4.
CC SMART; SM00235; ZnMc; 1.
CC PROSITE; PS00546; CYSTEINE_SWITCH; 1.
CC PROSITE; PS00023; FN2_1; 3.
CC PROSITE; PS1092; FN2_2; 3.
CC PROSITE; PS00024; HEMOPEXIN; 1.
CC PROSITE; PS00142; ZINC_PROTEASE; 1.
KW Calcium; Collagen degradation; Direct protein sequencing;
KW Extracellular matrix; Hydrolase; Metal-binding; Metalloprotease;
KW Protease; Repeat; Signal; Zinc; Zymogen.

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FT SIGNAL 1 26
FT PROPEP 27 106
FT CHAIN 107 663
FT DOMAIN 225 273
FT DOMAIN 283 331
FT DOMAIN 341 389
FT DOMAIN 469 663
FT REGION 107 218
FT REGION 219 393
FT REGION 394 468
FT ACT SITE 401 401
FT METAL 131 131
FT METAL 165 165
FT METAL 175 175
FT METAL 177 177
FT METAL 182 182
FT METAL 183 183
FT METAL 190 190
FT METAL 197 197
FT METAL 199 199
FT METAL 201 201
FT METAL 203 203
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FT METAL 206 206
FT METAL 208 208
FT METAL 400 400
FT METAL 404 404
FT METAL 410 410
FT METAL 479 479
FT METAL 524 524
FT METAL 572 572
FT METAL 621 621
FT SITE 99 99
FT DISULFID 472 663
FT CONFLICT 40 40
FT CONFLICT 116 116
FT CONFLICT 122 122
SQ SEQUENCE 663 AA; 74941 MW; 8D6FDA4B67C3EBCA CRC64;

Activation peptide.
72 kDa type IV collagenase.
Fibronectin type-II 1.
Fibronectin type-II 2.
Fibronectin type-II 3.
Hemopexin-like.
Collagenase-like 1.
Collagen-binding.
Collagenase-like 2.
By similarity.
Calcium 1 (By similarity).
Calcium 2 (By similarity).
Zinc 1 (By similarity).
Zinc 1 (By similarity).
Calcium 3 (By similarity).
Calcium 3 (via carbonyl oxygen) (By similarity).
Zinc 1 (By similarity).
Calcium 2 (via carbonyl oxygen) (By similarity).
Calcium 2 (via carbonyl oxygen) (By similarity).
Calcium 2 (By similarity).
Zinc 1 (By similarity).
Calcium 3 (By similarity).
Calcium 3 (By similarity).
Zinc 2 (catalytic) (By similarity).
Zinc 2 (catalytic) (By similarity).
Zinc 2 (catalytic) (By similarity).
Calcium 4 (via carbonyl oxygen) (By similarity).
Calcium 4 (via carbonyl oxygen) (By similarity).
Calcium 4 (via carbonyl oxygen) (By similarity).
Calcium 4 (via carbonyl oxygen) (By similarity).
Calcium 4 (via carbonyl oxygen) (By similarity).
Cysteine switch (Potential).
By similarity.
P -> Q (in Ref. 2).
W -> T (in Ref. 2).
T -> I (in Ref. 2).

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Query Match 100.0%; Score 60; DB 1; Length 663;
 Best Local Similarity 100.0%; Pred. No. 0.045;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 1 NYNFFPRKPK 10
Db 106 NYNFFPRKPK 115

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Search completed: February 21, 2006, 18:42:03
 Job time : 100.263 secs

GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: February 21, 2006, 17:57:40 ; Search time 101.053 Seconds
(without alignments)
43.480 Million cell updates/sec

Title: US-10-601-059-13
Perfect score: 60
Sequence: 1 NYNFFPRKPK 10

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 60

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 100%
Maximum Match 100%
Listing first 500 summaries

Database : A_Geneseq_21.*

- 1: Geneseq1980s.*
- 2: Geneseq1990s.*
- 3: Geneseq2000s.*
- 4: Geneseq2001s.*
- 5: Geneseq2002s.*
- 6: Geneseq2003as.*
- 7: Geneseq2003bs.*
- 8: Geneseq2004s.*
- 9: Geneseq2005s.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	60	100.0	10	6 ABP97135	Abp97135 Human mat
2	60	100.0	10	6 ABG76321	Abg76321 Human mat
3	60	100.0	10	8 ADQ17096	Adq17096 Human mat
4	60	100.0	10	9 ADV68477	Adv68477 Human mat
5	60	100.0	19	6 ABP97133	Abp97133 Human mat
6	60	100.0	19	6 ABG76319	Abg76319 Human mat
7	60	100.0	19	8 ADQ17094	Adq17094 Human mat
8	60	100.0	19	9 ADV68475	Adv68475 Human mat
9	60	100.0	20	2 AAY07368	Aay07368 Matrix me
10	60	100.0	23	2 AAY07359	Aay07359 Matrix me
11	60	100.0	43	6 ABP97137	Abp97137 Human mat
12	60	100.0	43	6 ABG76323	Abg76323 Partial s
13	60	100.0	43	8 ADQ17098	Adq17098 Human mat
14	60	100.0	43	9 ADV68479	Adv68479 Human mat
15	60	100.0	44	6 ABP97124	Abp97124 Human mat
16	60	100.0	44	6 ABG76310	Abg76310 Human mat
17	60	100.0	44	8 ADQ17085	Adq17085 Human mat
18	60	100.0	44	9 ADV68466	Adv68466 Human mat
19	60	100.0	75	4 AAM30829	Aam30829 Peptide #
20	60	100.0	75	4 ABB22666	Abb22666 Protein #
21	60	100.0	75	5 ABG40146	Abg40146 Human pep
22	60	100.0	194	9 AEA20074	Aea20074 Novel hum
23	60	100.0	445	7 ADF59546	Adf59546 Human pol
24	60	100.0	462	9 AEA90447	Aea90447 Human lun

25	60	100.0	468	4 ABG24001	Abg24001 Novel hum
26	60	100.0	623	8 ABM84057	Abm84057 Human dia
27	60	100.0	631	1 AAP96143	Aap96143 Sequence
28	60	100.0	631	1 AAP91139	Aap91139 Human typ
29	60	100.0	631	2 AAR07969	Aar07969 Complete
30	60	100.0	631	2 AAY07350	Aay07350 Human typ
31	60	100.0	631	2 AAW41226	Aaw41226 Human mat
32	60	100.0	631	7 ADM48668	Adm48668 Human mat
33	60	100.0	631	8 ADT05996	Adt05996 Human mat
34	60	100.0	633	8 ADT05997	Adt05997 Mouse mat
35	60	100.0	644	4 AAB20490	Aab20490 Human mat
36	60	100.0	660	2 AAR06420	Aar06420 Type IV c
37	60	100.0	660	4 AAB84607	Aab84607 Amino aci
38	60	100.0	660	4 AAE10431	Aae10431 Human mat
39	60	100.0	660	5 ABB79413	Abb79413 Human mat
40	60	100.0	660	5 ABB90738	Abb90738 Human tum
41	60	100.0	660	5 AAU84348	Aau84348 Protein M
42	60	100.0	660	6 ABU54445	Abu54445 Human tum
43	60	100.0	660	6 ABP97136	Abp97136 Human mat
44	60	100.0	660	6 AAO16608	Aao16608 Human mat
45	60	100.0	660	6 ABG76322	Abg76322 Human mat
46	60	100.0	660	7 ADD18578	Add18578 Human dis
47	60	100.0	660	7 ADP65244	Adp65244 Human mat
48	60	100.0	660	8 ADN07697	Adn07697 Human mat
49	60	100.0	660	8 ADQ17097	Adq17097 Human mat
50	60	100.0	660	9 ADV90301	Adv90301 Protease-
51	60	100.0	660	9 ADV68478	Adv68478 Human mat
52	60	100.0	662	7 ADE62857	Ade62857 Rat Prote
53	60	100.0	662	7 ADD46270	Add46270 Rat Prote
54	60	100.0	663	2 AAW41111	Aaw41111 Chicken m
55	60	100.0	663	2 AAW41227	Aaw41227 Chicken m
56	60	100.0	663	8 ADT05976	Adt05976 Chicken m
57	60	100.0	663	8 ADT05995	Adt05995 Chicken m
58	60	100.0	708	7 ADF60554	Adf60554 Human con
59	60	100.0	708	9 AEA20970	Aea20970 Novel hum
60	60	100.0	1330	4 ABG23999	Abg23999 Novel hum

ALIGNMENTS

RESULT 1

ABP97135
ID ABP97135 standard; peptide; 10 AA.
AC ABP97135;
XX

24-JUN-2003 (first entry)

XX Human matrix metalloproteinase 2 cleavage region peptide SEQ ID NO:13.
XX Human; matrix metalloproteinase; MMP; anticancer; wound healing;
XX matrix metalloproteinase inhibitor; antitumour; antiangiogenic; cardiant;
XX vascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic;
XX vulnary; cerebroprotective; antidiabetic; ophthalmological; tumour;
XX dermatological; metastatic; non-metastatic; vascularised; heart disease;
XX non-vascularised; surgical incision; chronic wound; stroke; angiogenesis;
XX macular degeneration; diabetic retinopathy; cleavage region.
XX Homo sapiens.
XX WO2003018748-A2.
XX 06-MAR-2003.
XX 15-AUG-2002; 2002WO-US026319.
XX 16-AUG-2001; 2001US-0312726P.
XX 21-DEC-2001; 2001US-00032376.
XX 21-MAY-2002; 2002US-00153185.
XX (KIMB) KIMBERLY-CLARK WORLDWIDE INC.

```

PI Quirk S, Weart IF;
XX WPI; 2003-381408/36.
XX
XX Anti-angiogenic composition comprising peptide inhibitor of matrix
PT metalloproteinase, useful for decreasing the expression of vascular
PT endothelial growth factor and treating cancers and tissue injuries.
XX
XX Claim 17; Page 45; 103pp; English.
XX
XX The present invention describes an anti-angiogenic composition (I) for
CC inhibiting expression of vascular endothelial growth factor (VEGF). (I)
CC comprises an effective amount of a peptide inhibitor of matrix
CC metalloproteinase (MMP), where the peptide can inhibit the expression of
CC VEGF. (I) has cytostatic, vulnary, cardiant, cerebroprotective,
CC antidiabetic, ophthalmological and dermatological activities. (I) can be
CC used for inhibiting expression of VEGF, and so can be used for inhibiting
CC growth of tumours and diminishing tumours size. The tumour can be
CC metastatic, non-metastatic, vascularised, non-vascularised, hard or soft.
CC (I) is also useful for treating injuries including wounds, surgical
CC incisions, chronic wounds, heart diseases and stroke. (I) is also useful
CC for treating disorders characterised by excessive angiogenesis e.g.
CC macular degeneration and diabetic retinopathy. The present sequence
CC represents a human MMP cleavage region peptide, which is used in the
CC exemplification of the present invention
XX
SQ Sequence 10 AA;
Query Match 100.0%; Score 60; DB 6; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.00098;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 1 NYNFFPRKPK 10
|||||

RESULT 2
ABG76321
ID ABG76321 standard; peptide; 10 AA.
XX
XX ABG76321;
XX
XX 10-MAY-2003 (first entry)
XX
XX Human matrix metalloproteinase (MMP) peptide inhibitor #13.
XX
XX Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2;
KW cleavage region; proenzyme form; cellular proliferation; fibroblast;
KW keratinocyte; healthy skin development; wound healing; scarring;
KW skin tone; wrinkle; anti-aging; vulnerary.
XX
XX Homo sapiens.
XX
XX WO2003016520-A1.
PN
XX 27-FEB-2003.
PD
XX
XX 15-AUG-2002; 2002WO-US026198.
PF
XX
XX 16-AUG-2001; 2001US-0312726P.
PR
XX 21-DEC-2001; 2001US-00032376.
PR
XX 21-MAY-2002; 2002US-00153185.
XX
XX (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
PA
XX
XX Quirk S, Malik S, Villanueva JM;
PI
XX WPI; 2003-289980/28.
XX
XX Novel peptide inhibitor of proteinase activity of matrix
PT metalloproteinases, e.g. matrix metalloproteinase-2, useful for
PT stimulating cellular proliferation of fibroblasts or keratinocytes.
PT

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XX Claim 1; Page 44; 120pp; English.
XX
XX The present invention relates to peptide inhibitors of metalloproteinases
CC (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have
CC peptide sequences related to the cleavage regions of the proenzyme forms
CC of the MMPs. The peptide inhibitors are useful for stimulating cellular
CC proliferation of fibroblasts or keratinocytes, promoting healthy skin
CC development, treating wounds, preventing scarring, improving skin tone,
CC reducing wrinkling and for simulating the development of smooth, healthy
CC skin. The peptide inhibitors are useful as anti-aging and wound healing
CC compounds. ABG76309-ABG76321 represent peptide inhibitors of MMPs
XX
XX Sequence 10 AA;
Query Match 100.0%; Score 60; DB 6; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.00098;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 1 NYNFFPRKPK 10
|||||

RESULT 3
ADQ17096
ID ADQ17096 standard; peptide; 10 AA.
XX
XX ADQ17096;
XX
XX 23-SEP-2004 (first entry)
XX
XX Human matrix metalloproteinase-2 (MMP2) cleavage region peptide #4.
XX
XX Fibronectin; healthy skin; wrinkle; wound; vulnerary; dermatological;
KW human; matrix metalloproteinase; MMP.
XX
XX Homo sapiens.
XX
XX US2004127421-A1.
PN
XX 01-JUL-2004.
PD
XX
XX 30-DEC-2002; 2002US-00335207.
PF
XX 30-DEC-2002; 2002US-00335207.
PR
XX (MALI/) MALIK S.
PA (QUIR/) QUIRK S.
XX
XX Malik S, Quirk S;
PI
XX WPI; 2004-506456/48.
XX
XX Composition used for preventing and treating wrinkles and treating wounds
PT comprises peptide having sequence related to matrix metalloproteinase
PT proenzyme.
XX
XX Example 1; SEQ ID NO 13; 60pp; English.
XX
XX The present invention provides peptides and compositions containing such
CC peptides that are useful as agents to maintain healthy skin and to
CC promote the condition of the skin. The invention is useful for increasing
CC the amount of fibronectin in tissue. The invention is also useful for
CC encouraging the maintenance and development of healthy skin, preventing
CC and treating wrinkles and for treating wounds. The invention acts as
CC vulnerary and dermatological agents. The present sequence is human matrix
CC metalloproteinase (MMP) cleavage region peptide. This sequence is used in
CC the exemplification of the invention.
XX
XX Sequence 10 AA;
Query Match 100.0%; Score 60; DB 8; Length 10;

```

Best Local Similarity 100.0%; Pred. No. 0.00098;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
| | | | | | | |
Db 1 NYNFFPRKPK 10

RESULT 4
ADV68477
ID ADV68477 standard; peptide; 10 AA.
AC ADV68477;
XX
XX 10-MAR-2005 (first entry)
XX
XX Human matrix metalloproteinase-2 cleavage region polypeptide SeqID13.
XX
XX cell growth; pharmaceutical; cytostatic; metalloprotease 1 inhibitor;
KW metalloprotease 2 inhibitor; metalloprotease 3 inhibitor;
KW metalloprotease 4 inhibitor; metalloprotease 5 inhibitor;
KW metalloprotease 6 inhibitor; metalloprotease 7 inhibitor;
KW metalloprotease 8 inhibitor; metalloprotease 9 inhibitor;
KW metalloprotease 10 inhibitor; metalloprotease 11 inhibitor;
KW metalloprotease 12 inhibitor; metalloprotease 13 inhibitor;
KW metalloprotease inhibitor; bone tumor; sarcoma.
XX
XX Homo sapiens.
XX
XX US2004259802-A1.
XX
XX 23-DEC-2004.
XX
XX 20-JUN-2003; 2003US-00601059.
XX
XX 20-JUN-2003; 2003US-00601059.
XX
XX (YANG/) YANG S.
PA (QUIR/) QUIRK S.
XX
XX Yang S, Quirk S;
PI
XX
XX WPI; 2005-047374/05.
XX
XX A composition for decreasing and inhibiting the growth of chondrosarcoma
PT cells, useful for treating chondrosarcomas and bone cancer, comprises a
PT matrix metalloproteinase inhibitor.
XX
XX Claim 16; SEQ ID NO 13; 50pp; English.
XX
XX This invention relates to a novel composition for inhibiting growth of
CC chondrosarcoma cells comprising an amount of a peptide and a
CC pharmaceutical carrier. The invention may be useful for the production of
CC compounds with a cytostatic activity acting as metalloprotease 1
CC inhibitors, metalloprotease 2 inhibitors, metalloprotease 3 inhibitors,
CC metalloprotease 4 inhibitors, metalloprotease 5 inhibitors,
CC metalloprotease 6 inhibitors, metalloprotease 7 inhibitors,
CC metalloprotease 8 inhibitors, metalloprotease 9 inhibitors,
CC metalloprotease 10 inhibitors, metalloprotease 11 inhibitors,
CC metalloprotease 12 inhibitors, metalloprotease 13 inhibitors or
CC metalloprotease inhibitors. The composition is useful for decreasing and
CC inhibiting the growth of chondrosarcoma cells which in turn inhibits
CC growth of a bone tumor or diminishes a size of a bone tumor, useful for
CC treating chondrosarcomas and bone cancers. The present sequence is that
CC of a peptide derived from a human matrix metalloproteinase which may be
CC used during the development of a composition of the invention.
XX
XX Sequence 10 AA;

Query Match 100.0%; Score 60; DB 9; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.00098;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
| | | | | | | |
Db 1 NYNFFPRKPK 10

RESULT 5
ABP97133
ID ABP97133 standard; peptide; 19 AA.
XX
XX ABP97133;
AC
XX
XX 24-JUN-2003 (first entry)
XX
XX Human matrix metalloproteinase 2 cleavage region peptide SEQ ID NO:11.
XX
XX Human; matrix metalloproteinase; MMP; anticancer; wound healing;
KW matrix metalloproteinase inhibitor; antitumor; antiangiogenic; cardiant;
KW vascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic;
KW vulnary; cerebroprotective; antidiabetic; ophthalmological; tumour;
KW dermatological; metastatic; non-metastatic; vascularised; heart disease;
KW non-vascularised; surgical incision; chronic wound; stroke; angiogenesis;
KW macular degeneration; diabetic retinopathy; cleavage region.
XX
XX Homo sapiens.
XX
XX WO2003018748-A2.
XX
XX 06-MAR-2003.
XX
XX 15-AUG-2002; 2002WO-US026319.
XX
XX 16-AUG-2001; 2001US-0312726P.
XX
XX 21-DEC-2001; 2001US-00032376.
XX
XX 21-MAY-2002; 2002US-00153185.
XX
XX (KIMB) KIMBERLY-CLARK WORLDWIDE INC.
XX
XX Quirk S, Weart IF;
PI
XX
XX WPI; 2003-381408/36.
XX
XX Anti-angiogenic composition comprising peptide inhibitor of matrix
PT metalloproteinase, useful for decreasing the expression of vascular
PT endothelial growth factor and treating cancers and tissue injuries.
XX
XX Claim 17; Page 45; 103pp; English.
XX
XX The present invention describes an anti-angiogenic composition (I) for
CC inhibiting expression of vascular endothelial growth factor (VEGF). (I)
CC comprises an effective amount of a peptide inhibitor of matrix
CC metalloproteinase (MMP), where the peptide can inhibit the expression of
CC VEGF. (I) has cytostatic, vulnary, cardiant, cerebroprotective,
CC antidiabetic, ophthalmological and dermatological activities. (I) can be
CC used for inhibiting expression of VEGF, and so can be used for inhibiting
CC growth of tumours and diminishing tumours size. The tumour can be
CC metastatic, non-metastatic, vascularised, non-vascularised, hard or soft.
CC (I) is also useful for treating injuries including wounds, surgical
CC incisions, chronic wounds, heart diseases and stroke. (I) is also useful
CC for treating disorders characterised by excessive angiogenesis e.g.
CC macular degeneration and diabetic retinopathy. The present sequence
CC represents a human MMP cleavage region peptide, which is used in the
CC exemplification of the present invention
XX
XX Sequence 19 AA;

Query Match 100.0%; Score 60; DB 6; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.0019;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
| | | | | | | |
Db 10 NYNFFPRKPK 19

```

RESULT 6
ABG76319
ID ABG76319 standard; peptide; 19 AA.
XX
XX AC ABG76319;
XX
XX DT 10-MAY-2003 (first entry)
XX
XX DE Human matrix metalloproteinase (MMP) peptide inhibitor #11.
XX
XX KW Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2;
KW cleavage region; proenzyme form; cellular proliferation; fibroblast;
KW keratinocyte; healthy skin development; wound healing; scarring;
KW skin tone; wrinkle; anti-aging; vulnerary.
XX
XX OS Homo sapiens.
XX
XX PN WQ2003016520-A1.
XX
XX PD 27-FEB-2003.
XX
XX PF 15-AUG-2002; 2002WO-US026198.
XX
XX PR 16-AUG-2001; 2001US-0312726P.
XX
XX PR 21-DEC-2001; 2001US-00033376.
XX
XX PR 21-MAY-2002; 2002US-00153185.
XX
XX PA (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
XX
XX PI Quirk S, Malik S, Villanueva JM;
XX
XX DR WPI; 2003-289980/28.
XX
XX PT Novel peptide inhibitor of proteinase activity of matrix
XX metalloproteinases, e.g. matrix metalloproteinase-2, useful for
XX stimulating cellular proliferation of fibroblasts or keratinocytes.
XX
XX PS Claim 1; Page 44; 120pp; English.
XX
XX CC The present invention relates to peptide inhibitors of metalloproteinases
XX (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have
XX peptide sequences related to the cleavage regions of the proenzyme forms
XX of the MMPs. The peptide inhibitors are useful for stimulating cellular
XX proliferation of fibroblasts or keratinocytes, promoting healthy skin
XX development, treating wounds, preventing scarring, improving skin tone,
XX reducing wrinkling and for simulating the development of smooth, healthy
XX skin. The peptide inhibitors are useful as anti-aging and wound healing
XX compounds. ABG76309-ABG76321 represent peptide inhibitors of MMPs
XX
XX SQ Sequence 19 AA;
XX
XX Query Match 100.0%; Score 60; DB 6; Length 19;
XX Best Local Similarity 100.0%; Pred. No. 0.0019;
XX Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX QY 1 NYNFFPRKPK 10
XX Db |||||
XX 10 NYNFFPRKPK 19
XX
XX RESULT 8
XX ADV68475
XX ID ADV68475 standard; peptide; 19 AA.
XX
XX AC ADV68475;
XX
XX DT 10-MAR-2005 (first entry)
XX
XX DE Human matrix metalloproteinase-2 cleavage region polypeptide SeqID11.
XX
XX KW cell growth; pharmaceutical; cytostatic; metalloproteinase 1 inhibitor;
XX metalloproteinase 2 inhibitor; metalloproteinase 3 inhibitor;
XX metalloproteinase 4 inhibitor; metalloproteinase 5 inhibitor;
XX metalloproteinase 6 inhibitor; metalloproteinase 7 inhibitor;
XX metalloproteinase 8 inhibitor; metalloproteinase 9 inhibitor;
XX metalloproteinase 10 inhibitor; metalloproteinase 11 inhibitor;
XX metalloproteinase 12 inhibitor; metalloproteinase 13 inhibitor;
XX metalloproteinase inhibitor; bone tumor; sarcoma.
XX
XX OS Homo sapiens.
XX
XX PN US2004259802-A1.
XX
XX PD 23-DEC-2004.
XX
XX PF 20-JUN-2003; 2003US-00601059.
XX
XX PR 20-JUN-2003; 2003US-00601059.
XX

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Composition used for preventing and treating wrinkles and treating wounds comprises peptide having sequence related to matrix metalloproteinase proenzyme.

Claim 11; SEQ ID NO 11; 60pp; English.

The present invention provides peptides and compositions containing such peptides that are useful as agents to maintain healthy skin and to promote the condition of the skin. The invention is useful for increasing the amount of fibronectin in tissue. The invention is also useful for encouraging the maintenance and development of healthy skin, preventing and treating wrinkles and for treating wounds. The invention acts as vulnary and dermatological agents. The present sequence is human matrix metalloproteinase (MMP) cleavage region peptide. This sequence is used in the exemplification of the invention.

Sequence 19 AA;

Query Match 100.0%; Score 60; DB 8; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.0019;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 10 NYNFFPRKPK 19

RESULT 8
ADV68475
ID ADV68475 standard; peptide; 19 AA.
AC ADV68475;

10-MAR-2005 (first entry)

Human matrix metalloproteinase-2 cleavage region polypeptide SeqID11.

cell growth; pharmaceutical; cytostatic; metalloproteinase 1 inhibitor; metalloproteinase 2 inhibitor; metalloproteinase 3 inhibitor; metalloproteinase 4 inhibitor; metalloproteinase 5 inhibitor; metalloproteinase 6 inhibitor; metalloproteinase 7 inhibitor; metalloproteinase 8 inhibitor; metalloproteinase 9 inhibitor; metalloproteinase 10 inhibitor; metalloproteinase 11 inhibitor; metalloproteinase 12 inhibitor; metalloproteinase 13 inhibitor; metalloproteinase inhibitor; bone tumor; sarcoma.

Homo sapiens.

US2004259802-A1.

23-DEC-2004.

20-JUN-2003; 2003US-00601059.

20-JUN-2003; 2003US-00601059.

CC enzyme. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PI field.)
 CC 2003 to correct PA field.) (Updated on 25-MAR-2003 to correct PI field.)
 XX
 SQ Sequence 23 AA;

Query Match 100.0%; Score 60; DB 2; Length 23;
 Best Local Similarity 100.0%; Pred. No. 0.0023;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
 DB 14 NYNFFPRKPK 23
 |||||

RESULT 11
 ABP97137
 ID ABP97137 standard; peptide; 43 AA.

XX AC ABP97137;

XX DT 24-JUN-2003 (first entry)

DE Human matrix metalloproteinase 2 peptide SEQ ID NO:15.

XX Human; matrix metalloproteinase; MMP; anticancer; wound healing;
 KW matrix metalloproteinase inhibitor; antitumour; antiangiogenic; cardiant;
 KW vascular endothelial growth factor inhibitor; VEGF inhibitor; cycostatic;
 KW vulnary; cerebroprotective; antidiabetic; ophthalmological; tumour;
 KW dermatological; metastatic; non-metastatic; vascularised; heart disease;
 KW non-vascularised; surgical incision; chronic wound; stroke; angiogenesis;
 KW macular degeneration; diabetic retinopathy; cleavage region.

XX OS Homo sapiens.

XX PN WO2003018748-A2.

XX PD 06-MAR-2003.

XX PF 15-AUG-2002; 2002WO-US026319.

XX PR 16-AUG-2001; 2001US-0312726P.

XX PR 21-DEC-2001; 2001US-00032376.

XX PR 21-MAY-2002; 2002US-00153185.

XX PA (KIMB) KIMBERLY-CLARK WORLDWIDE INC.

XX PI Quirk S, Weart IF;

XX PS WPI; 2003-381408/36.

XX PT Anti-angiogenic composition comprising peptide inhibitor of matrix

XX PT metalloproteinase, useful for decreasing the expression of vascular

XX PT endothelial growth factor and treating cancers and tissue injuries.

XX PS Disclosure; Page 26; 103pp; English.

XX CC The present invention describes an anti-angiogenic composition (I) for
 CC inhibiting expression of vascular endothelial growth factor (VEGF). (I)
 CC comprises an effective amount of a peptide inhibitor of matrix
 CC metalloproteinase (MMP), where the peptide can inhibit the expression of
 CC VEGF. (I) has cytostatic, vulnary, cardiant, cerebroprotective,
 CC antidiabetic, ophthalmological and dermatological activities. (I) can be
 CC used for inhibiting expression of VEGF, and so can be used for inhibiting
 CC growth of tumours and diminishing tumours size. The tumour can be
 CC metastatic, non-metastatic, vascularised, non-vascularised, hard or soft.

XX CC (I) is also useful for treating injuries including wounds, surgical
 CC incisions, chronic wounds, heart diseases and stroke. (I) is also useful
 CC for treating disorders characterised by excessive angiogenesis e.g.
 CC macular degeneration and diabetic retinopathy. The present sequence
 CC represents a human MMP peptide, which is used in the exemplification of
 CC the present invention

XX SQ Sequence 43 AA;

Query Match 100.0%; Score 60; DB 6; Length 43;
 Best Local Similarity 100.0%; Pred. No. 0.0043;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
 DB 33 NYNFFPRKPK 42
 |||||

RESULT 12
 ABG76323

ID ABG76323 standard; protein; 43 AA.

XX AC ABG76323;

XX DT 10-MAY-2003 (first entry)

DE Partial sequence from human matrix metalloproteinase-2 (MMP-2).

XX Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2;
 KW cleavage region; proenzyme form; cellular proliferation; fibroblast;
 KW keratinocyte; healthy skin development; wound healing; scarring;
 KW skin tone; wrinkle; anti-aging; vulnary.

XX OS Homo sapiens.

XX PN WO2003016520-A1.

XX PD 27-FEB-2003.

XX PF 15-AUG-2002; 2002WO-US026198.

XX PR 16-AUG-2001; 2001US-0312726P.

XX PR 21-DEC-2001; 2001US-00032376.

XX PR 21-MAY-2002; 2002US-00153185.

XX PA (KIMB) KIMBERLY-CLARK WORLDWIDE INC.

XX PI Quirk S, Malik S, Villanueva JM;

XX PS WPI; 2003-289980/28.

XX PT Novel peptide inhibitor of proteinase activity of matrix

XX PT metalloproteinases, e.g. matrix metalloproteinase-2, useful for

XX PT stimulating cellular proliferation of fibroblasts or keratinocytes.

XX PS Claim 1; Page 27; 120pp; English.

XX CC The present invention relates to peptide inhibitors of metalloproteinases
 CC (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have
 CC peptide sequences related to the cleavage regions of the proenzyme forms
 CC of the MMPs. The peptide inhibitors are useful for stimulating cellular
 CC proliferation of fibroblasts or keratinocytes, promoting healthy skin
 CC development, treating wounds, preventing scarring, improving skin tone,
 CC reducing wrinkling and for simulating the development of smooth, healthy
 CC skin. The peptide inhibitors are useful as anti-aging and wound healing
 CC compounds. The present sequence represents a partial sequence of human
 CC MMP-2

XX SQ Sequence 43 AA;

Query Match 100.0%; Score 60; DB 6; Length 43;
 Best Local Similarity 100.0%; Pred. No. 0.0043;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
 DB 33 NYNFFPRKPK 42
 |||||

RESULT 13
 ADQ17098

ADQ17098 standard; peptide; 43 AA.
ADQ17098;
23-SEP-2004 (first entry)
Human matrix metalloproteinase-2 (MMP2) wound site peptide.
Fibronectin; healthy skin; wrinkle; wound; vulnery; dermatological;
human; matrix metalloproteinase; MMP.
Homo sapiens.
US2004127421-A1.
01-JUL-2004.
30-DEC-2002; 2002US-00335207.
30-DEC-2002; 2002US-00335207.
(MALI/) MALIK S.
(QUIR/) QUIRK S.
Malik S, Quirk S;
WPI; 2004-506456/48.
Composition used for preventing and treating wrinkles and treating wounds
comprises peptide having sequence related to matrix metalloproteinase
proenzyme.
Disclosure; SEQ ID NO 15; 60pp; English.
The present invention provides peptides and compositions containing such
peptides that are useful as agents to maintain healthy skin and to
promote the condition of the skin. The invention is useful for increasing
the amount of fibronectin in tissue. The invention is also useful for
encouraging the maintenance and development of healthy skin, preventing
and treating wrinkles and for treating wounds. The invention acts as
vulnery and dermatological agents. The present sequence is human matrix
metalloproteinase (MMP) wound site peptide. This sequence is used in the
exemplification of the invention.
Sequence 43 AA;
Query Match 100.0%; Score 60; DB 8; Length 43;
Best Local Similarity 100.0%; Pred. No. 0.0043;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 NYNFFPRKPK 10
Db 33 NYNFFPRKPK 42
RESULT 14
ADV68479
ID ADV68479 standard; protein; 43 AA.
XX
AC ADV68479;
XX
DT 10-MAR-2005 (first entry)
XX
DE Human matrix metalloproteinase-2 polypeptide SeqID15.
XX
KW cell growth; pharmaceutical; cytostatic; metalloproteinase 1 inhibitor;
KW metalloproteinase 2 inhibitor; metalloproteinase 3 inhibitor;
KW metalloproteinase 4 inhibitor; metalloproteinase 5 inhibitor;
KW metalloproteinase 6 inhibitor; metalloproteinase 7 inhibitor;
KW metalloproteinase 8 inhibitor; metalloproteinase 9 inhibitor;
KW metalloproteinase 10 inhibitor; metalloproteinase 11 inhibitor;
KW metalloproteinase 12 inhibitor; metalloproteinase 13 inhibitor;
KW metalloproteinase inhibitor; bone tumor; sarcoma.

XX Homo sapiens.
OS US2004259802-A1.
XX 23-DEC-2004.
XX 20-JUN-2003; 2003US-00601059.
XX 20-JUN-2003; 2003US-00601059.
XX (YANG/) YANG S.
PA (QUIR/) QUIRK S.
XX Yang S, Quirk S;
PI WPI; 2005-047374/05.
XX
XX A composition for decreasing and inhibiting the growth of chondrosarcoma
cells, useful for treating chondrosarcomas and bone cancer, comprises a
matrix metalloproteinase inhibitor.
Disclosure; SEQ ID NO 15; 50pp; English.
This invention relates to a novel composition for inhibiting growth of
chondrosarcoma cells comprising an amount of a peptide and a
pharmaceutical carrier. The invention may be useful for the production of
compounds with a cytostatic activity acting as metalloproteinase 1
inhibitors, metalloproteinase 2 inhibitors, metalloproteinase 3 inhibitors,
metalloproteinase 4 inhibitors, metalloproteinase 5 inhibitors,
metalloproteinase 6 inhibitors, metalloproteinase 7 inhibitors,
metalloproteinase 8 inhibitors, metalloproteinase 9 inhibitors,
metalloproteinase 10 inhibitors, metalloproteinase 11 inhibitors, or
metalloproteinase 12 inhibitors. The composition is useful for decreasing and
inhibiting the growth of chondrosarcoma cells which in turn inhibits
growth of a bone tumor or diminishes a size of a bone tumor, useful for
treating chondrosarcomas and bone cancers. The present sequence is that
of a peptide derived from a human matrix metalloproteinase which may be
used during the development of a composition of the invention.
Sequence 43 AA;
Query Match 100.0%; Score 60; DB 9; Length 43;
Best Local Similarity 100.0%; Pred. No. 0.0043;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 NYNFFPRKPK 10
Db 33 NYNFFPRKPK 42
RESULT 15
ABP97124
ID ABP97124 standard; peptide; 44 AA.
XX
AC ABP97124;
XX
DT 24-JUN-2003 (first entry)
XX
DE Human matrix metalloproteinase 2 cleavage region peptide SEQ ID NO:2.
XX
KW Human; matrix metalloproteinase; MMP; anticancer; wound healing;
KW matrix metalloproteinase inhibitor; antitumor; antiangiogenic; cardiant;
KW vascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic;
KW vulnery; cerebroprotective; antidiabetic; ophthalmological; tumour;
KW dermatological; metastatic; non-metastatic; vascularised; heart disease;
KW non-vascularised; surgical incision; chronic wound; stroke; angiogenesis;
KW macular degeneration; diabetic retinopathy; cleavage region.
XX
OS Homo sapiens.
XX WO2003018748-A2.
PN

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XX PD 06-MAR-2003.
XX PF 15-AUG-2002; 2002WO-US026319.
XX PR 16-AUG-2001; 2001US-0312726P.
XX PR 21-DEC-2001; 2001US-00032376.
XX PR 21-MAY-2002; 2002US-00153185.
XX PA (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
XX PI Quirk S, Weart IF;
XX PX WPI; 2003-381408/36.
XX PT Anti-angiogenic composition comprising peptide inhibitor of matrix
XX PT metalloproteinase, useful for decreasing the expression of vascular
XX PT endothelial growth factor and treating cancers and tissue injuries.
XX PS Claim 17; Page 15; 103pp; English.
XX CC The present invention describes an anti-angiogenic composition (I) for
XX CC inhibiting expression of vascular endothelial growth factor (VEGF). (I)
XX CC comprises an effective amount of a peptide inhibitor of matrix
XX CC metalloproteinase (MMP), where the peptide can inhibit the expression of
XX CC VEGF. (I) has cytostatic, vulnary, cardiant, cerebroprotective,
XX CC antidiabetic, ophthalmological and dermatological activities. (I) can be
XX CC used for inhibiting expression of VEGF, and so can be used for inhibiting
XX CC growth of tumours and diminishing tumours size. The tumour can be
XX CC metastatic, non-metastatic, vascularised, non-vascularised, hard or soft.
XX CC (I) is also useful for treating injuries including wounds, surgical
XX CC incisions, chronic wounds, heart diseases and stroke. (I) is also useful
XX CC for treating disorders characterised by excessive angiogenesis e.g.
XX CC macular degeneration and diabetic retinopathy. The present sequence
XX CC represents a human MMP cleavage region peptide, which is used in the
XX CC exemplification of the present invention
XX SQ Sequence 44 AA;

Query Match 100.0%; Score 60; DB 6; Length 44;
Best Local Similarity 100.0%; Pred. No. 0.0044;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
DB 33 NYNFFPRKPK 42

RESULT 16
ABG76310
ID ABG76310 standard; protein; 44 AA.
XX AC ABG76310;
XX DT 10-MAY-2003 (first entry)
XX DE Human matrix metalloproteinase (MMP) peptide inhibitor #2.
XX KW Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2;
XX KW cleavage region; proenzyme form; cellular proliferation; fibroblast;
XX KW keratinocyte; healthy skin development; wound healing; scarring;
XX KW skin tone; wrinkle; anti-aging; vulnary.
XX OS Homo sapiens.
XX PN WO2003016520-A1.
XX XX 27-FEB-2003.
XX PD 15-AUG-2002; 2002WO-US026198.
XX PF 16-AUG-2001; 2001US-0312726P.
XX PR 21-DEC-2001; 2001US-00032376.
XX PR 21-DEC-2001; 2001US-00032376.

21-MAY-2002; 2002US-00153185.
XX PA (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
XX PX Quirk S, Villanueva JM;
XX DR WPI; 2003-289980/28.
XX PT Novel peptide inhibitor of proteinase activity of matrix
XX PT metalloproteinases, e.g. matrix metalloproteinase-2, useful for
XX PT stimulating cellular proliferation of fibroblasts or keratinocytes.
XX PS Claim 1; Page 16; 120pp; English.
XX CC The present invention relates to peptide inhibitors of metalloproteinases
XX CC (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have
XX CC peptide sequences related to the cleavage regions of the proenzyme forms
XX CC of the MMPs. The peptide inhibitors are useful for stimulating cellular
XX CC proliferation of fibroblasts or keratinocytes, promoting healthy skin
XX CC development, treating wounds, preventing scarring, improving skin tone,
XX CC reducing wrinkling and for simulating the development of smooth, healthy
XX CC skin. The peptide inhibitors are useful as anti-aging and wound healing
XX CC compounds. ABG76309-ABG76321 represent peptide inhibitors of MMPs
XX SQ Sequence 44 AA;

Query Match 100.0%; Score 60; DB 6; Length 44;
Best Local Similarity 100.0%; Pred. No. 0.0044;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
DB 33 NYNFFPRKPK 42

RESULT 17
ADQ17085
ID ADQ17085 standard; peptide; 44 AA.
XX AC ADQ17085;
XX DT 23-SEP-2004 (first entry)
XX DE Human matrix metalloproteinase-2 (MMP2) cleavage region peptide #1.
XX KW Fibronectin; healthy skin; wrinkle; wound; vulnary; dermatological;
XX KW human; matrix metalloproteinase; MMP.
XX OS Homo sapiens.
XX PN US2004127421-A1.
XX PD 01-JUL-2004.
XX PF 30-DEC-2002; 2002US-00335207.
XX PR 30-DEC-2002; 2002US-00335207.
XX KW (MALI/) MALIK S.
XX KW (QUIR/) QUIRK S.
XX PI Malik S, Quirk S;
XX DR WPI; 2004-506456/48.
XX PT Composition used for preventing and treating wrinkles and treating wounds
XX PT comprises peptide having sequence related to matrix metalloproteinase
XX PT proenzyme.
XX PS Example 1; SEQ ID NO 2; 60pp; English.
XX CC The present invention provides peptides and compositions containing such
XX CC peptides that are useful as agents to maintain healthy skin and to

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CC promote the condition of the skin. The invention is useful for increasing
 CC the amount of fibronectin in tissue. The invention is also useful for
 CC encouraging the maintenance and development of healthy skin, preventing
 CC and treating wrinkles and for treating wounds. The invention acts as
 CC vulnerary and dermatological agents. The present sequence is human matrix
 CC metalloproteinase (MMP) cleavage region peptide. This sequence is used in
 CC the exemplification of the invention.

XX SQ Sequence 44 AA;

Query Match 100.0%; Score 60; DB 8; Length 44;
 Best Local Similarity 100.0%; Pred. No. 0.0044;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
 |||||
 Db 33 NYNFFPRKPK 42

RESULT 18

ADV68466
 ID ADV68466 standard; protein; 44 AA.

XX AC ADV68466;

XX DT 10-MAR-2005 (first entry)

XX DE Human matrix metalloproteinase-2 cleavage region polypeptide SeqID2.

XX KW cell growth; pharmaceutical; cytostatic; metalloproteinase 1 inhibitor;
 KW metalloproteinase 2 inhibitor; metalloproteinase 3 inhibitor;
 KW metalloproteinase 4 inhibitor; metalloproteinase 5 inhibitor;
 KW metalloproteinase 6 inhibitor; metalloproteinase 7 inhibitor;
 KW metalloproteinase 8 inhibitor; metalloproteinase 9 inhibitor;
 KW metalloproteinase 10 inhibitor; metalloproteinase 11 inhibitor;
 KW metalloproteinase 12 inhibitor; metalloproteinase 13 inhibitor;
 KW metalloproteinase inhibitor; bone tumor; sarcoma.

XX OS Homo sapiens.

XX PN US2004259802-A1.

XX PD 23-DEC-2004.

XX PF 20-JUN-2003; 2003US-00601059.

XX PR 20-JUN-2003; 2003US-00601059.

XX PA (YANG/) YANG S.

XX PA (QUIR/) QUIRK S.

XX PI Yang S, Quirk S;

XX DR WPI; 2005-047374/05.

XX PT A composition for decreasing and inhibiting the growth of chondrosarcoma
 PT cells, useful for treating chondrosarcomas and bone cancer, comprises a
 PT matrix metalloproteinase inhibitor.

XX PS Claim 16; SEQ ID NO 2; 50pp; English.

XX CC This invention relates to a novel composition for inhibiting growth of
 CC chondrosarcoma cells comprising an amount of a peptide and a
 CC pharmaceutical carrier. The invention may be useful for the production of
 CC compounds with a cytostatic activity acting as metalloproteinase 1
 CC inhibitors, metalloproteinase 2 inhibitors, metalloproteinase 3 inhibitors,
 CC metalloproteinase 4 inhibitors, metalloproteinase 5 inhibitors,
 CC metalloproteinase 6 inhibitors, metalloproteinase 7 inhibitors,
 CC metalloproteinase 8 inhibitors, metalloproteinase 9 inhibitors,
 CC metalloproteinase 10 inhibitors, metalloproteinase 11 inhibitors,
 CC metalloproteinase 12 inhibitors, metalloproteinase 13 inhibitors or
 CC metalloproteinase inhibitors. The composition is useful for decreasing and
 CC inhibiting the growth of chondrosarcoma cells which in turn inhibits

CC growth of a bone tumor or diminishes a size of a bone tumor, useful for
 CC treating chondrosarcomas and bone cancers. The present sequence is that
 CC of a peptide derived from a human matrix metalloproteinase which may be
 CC used during the development of a composition of the invention.

XX SQ Sequence 44 AA;

Query Match 100.0%; Score 60; DB 9; Length 44;
 Best Local Similarity 100.0%; Pred. No. 0.0044;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
 |||||
 Db 33 NYNFFPRKPK 42

RESULT 19

AAM30829
 ID AAM30829 standard; protein; 75 AA.

XX AC AAM30829;

XX DT 17-OCT-2001 (first entry)

XX DE Peptide #4866 encoded by probe for measuring placental gene expression.

XX KW Probe; microarray; human; placenta; antenatal diagnosis;
 KW genetic disorder.

XX OS Homo sapiens.

XX PN WO200157272-A2.

XX PD 09-AUG-2001.

XX PF 30-JAN-2001; 2001WO-US0000563.

XX PR 04-FEB-2000; 2000US-0180312P.

XX PR 26-MAY-2000; 2000US-0207456P.

XX PR 30-JUN-2000; 2000US-00608408.

XX PR 03-AUG-2000; 2000US-00632366.

XX PR 21-SEP-2000; 2000US-0234687P.

XX PR 27-SEP-2000; 2000US-0236359P.

XX PR 04-OCT-2000; 2000GB-00024263.

XX PA (MOLE-) MOLECULAR DYNAMICS INC.

XX PI Penn SG, Hanzel DK, Chen W, Rank DR;

XX DR WPI; 2001-488897/53.

XX PT Human genome-derived single exon nucleic acid probes useful for analyzing
 PT gene expression in human placenta.

XX PS Claim 27; SEQ ID NO 31098; 654pp; English.

XX CC The present invention relates to single exon nucleic acid probes (SENP:
 CC see AA131315-AA15746). The present sequence is a peptide encoded by one
 CC such probe. The probes are useful for producing a microarray for
 CC predicting, measuring and displaying gene expression in samples derived
 CC from human placenta. The probes are useful for antenatal diagnosis of
 CC human genetic disorders

XX SQ Sequence 75 AA;

Query Match 100.0%; Score 60; DB 4; Length 75;
 Best Local Similarity 100.0%; Pred. No. 0.0075;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
 |||||
 Db 58 NYNFFPRKPK 67

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RESULT 20
ABB22666
ID ABB22666 standard; protein; 75 AA.
XX AC ABB22666;
XX AC ABB22666;
XX DT 23-JAN-2002 (first entry)
XX DE Protein #4665 encoded by probe for measuring heart cell gene expression.
XX KW Human; gene expression; heart; microarray; vascular system;
KW cardiovascular disease; hypertension; cardiac arrhythmia;
KW congenital heart disease.
XX OS Homo sapiens.
XX PN WO200157274-A2.
XX PD 09-AUG-2001.
XX PF 30-JAN-2001; 2001WO-US0000666.
XX PR 04-FEB-2000; 2000US-0180312P.
XX PR 26-MAY-2000; 2000US-0207456P.
XX PR 30-JUN-2000; 2000US-00608408.
XX PR 03-AUG-2000; 2000US-00632366.
XX PR 21-SEP-2000; 2000US-0234687P.
XX PR 27-SEP-2000; 2000US-0236359P.
XX PR 04-OCT-2000; 2000GB-00024263.
XX PA (MOLE-) MOLECULAR DYNAMICS INC.
XX PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX WPI; 2001-488899/53.
XX Single exon nucleic acid probes for analyzing gene expression in human
XX hearts.
XX Claim 15; SEQ ID NO 24436; 530pp; English.
XX The present invention relates to single exon nucleic acid probes for
XX measuring human gene expression in a sample derived from human heart (see
XX ABA21535-ABA41305). The present sequence is a protein encoded by one such
XX probe. The probes may be used for predicting, measuring and displaying
XX gene expression in samples derived from the human heart via microarrays.
XX By measuring gene expression, the probes are useful for predicting,
XX diagnosing, grading, staging, monitoring and prognosing diseases of the
XX human heart and vascular system e.g. cardiovascular disease,
XX hypertension, cardiac arrhythmias and congenital heart disease. Note: The
XX sequence data for this patent did not form part of the printed
XX specification, but was obtained in electronic format directly from WIPO
XX at ftp.wipo.int/pub/published_pct_sequences
XX Sequence 75 AA;
XX Query Match 100.0%; Score 60; DB 4; Length 75;
XX Best Local Similarity 100.0%; Pred. No. 0.0075;
XX Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 NYNFFPRPK 10
DB 58 NYNFFPRPK 67
|||||||
|||||||
RESULT 21
ABG40146
ID ABG40146 standard; peptide; 75 AA.
XX AC ABG40146;
XX AC ABG40146;
XX DT 19-AUG-2002 (first entry)
XX DE Human peptide encoded by genome-derived single exon probe SEQ ID 29811.
XX KW Human; single exon probe; asthma; lung cancer; COPD; ILD;
XX chronic obstructive pulmonary disease; interstitial lung disease;
XX familial idiopathic pulmonary fibrosis; neurofibromatosis;
XX tuberous sclerosis; Gaucher's disease; Niemann-Pick disease;
XX Hermansky-Pudlak syndrome; sarcoidosis; pulmonary haemosiderosis;
XX pulmonary histiocytosis; lymphangioleiomyomatosis; Karagener syndrome;
XX pulmonary alveolar proteinosis; fibrocystic pulmonary dysplasia;
XX primary ciliary dyskinesia; pulmonary hypertension;
XX hyaline membrane disease.
XX OS Homo sapiens.
XX PN WO200186003-A2.
XX PD 15-NOV-2001.
XX PF 30-JAN-2001; 2001WO-US0000665.
XX PR 04-FEB-2000; 2000US-0180312P.
XX PR 26-MAY-2000; 2000US-0207456P.
XX PR 30-JUN-2000; 2000US-00608408.
XX PR 03-AUG-2000; 2000US-00632366.
XX PR 21-SEP-2000; 2000US-0234687P.
XX PR 27-SEP-2000; 2000US-0236359P.
XX PR 04-OCT-2000; 2000GB-00024263.
XX PA (MOLE-) MOLECULAR DYNAMICS INC.
XX PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX WPI; 2002-114183/15.
XX Spatially-addressable set of single exon nucleic acid probes, used to
XX measure gene expression in human lung samples.
XX Claim 27; SEQ ID NO 29811; 634pp; English.
XX The invention relates to a spatially-addressable set of single exon
XX nucleic acid probes for measuring gene expression in a sample derived
XX from human lung comprising single exon nucleic acid probes having one of
XX 12614 nucleic acid sequences mentioned in the specification, or their
XX complements or the 12387 open reading frames derived from the 12614
XX probes. Also included are a microarray comprising the novel set of probes
XX; the novel set of probes which hybridise at high stringency to a nucleic
XX acid expressed in the human lung; measuring gene expression in a sample
XX derived from human lung, comprising (a) contacting the array with a
XX collection of detectably labeled nucleic acids derived from human lung
XX mRNA, and (b) measuring the label detectably bound to each probe of the
XX array; identifying exons in a eukaryotic genome, comprising (a)
XX algorithmically predicting at least one exon from genomic sequences of
XX the eukaryote; and (b) detecting specific hybridisation of detectably
XX labeled nucleic acids from eukaryote lung mRNA, to a single exon probe,
XX having a fragment identical to the predicted exon, the probe is included
XX in the above mentioned microarray; assigning exons to a single gene,
XX comprising (a) identifying exons from genomic sequence by the method
XX above and (b) measuring the expression of each of the exons in several
XX tissues and/or cell types using hybridisation to a single exon
XX microarrays having a probe with the exon, where a common pattern of
XX expression of the exons in the tissues and/or cell types indicates that
XX the exons should be assigned to a single gene; a peptide comprising one
XX of 12011 sequences, mentioned in the specification, or encoded by the
XX probes/open reading frames (ORF). The probes are used for gene expression
XX analysis, and for identifying exons in a gene, particularly using human
XX lung derived mRNA and for the study of lung diseases such as asthma, lung
XX cancer, chronic obstructive pulmonary disease (COPD), interstitial lung
XX disease (ILD), familial idiopathic pulmonary fibrosis, neurofibromatosis,
XX tuberous sclerosis, Gaucher's disease, Niemann-Pick disease, Hermansky-
XX Pudlak syndrome, sarcoidosis, pulmonary haemosiderosis, pulmonary
XX histiocytosis, lymphangioleiomyomatosis, pulmonary alveolar proteinosis,
XX Karagener syndrome, fibrocystic pulmonary dysplasia, primary ciliary

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CC dyskinesia, pulmonary hypertension and hyaline membrane disease. The
 CC present sequence is a peptide/protein encoded by a single exon probe of
 CC the invention. Note: The sequence data for this patent did not form part
 CC of the printed specification, but was obtained in electronic format
 CC directly from WIPO at ftp.wipo.int/pub/published_pct_sequences

XX SQ Sequence 75 AA;

Query Match 100.0%; Score 60; DB 5; Length 75;
 Best Local Similarity 100.0%; Pred. No. 0.0075;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
 |||||
 Db 58 NYNFFPRKPK 67

RESULT 22

AEA20074

ID AEA20074 standard; protein; 194 AA.

XX AC AEA20074;

XX DT 11-AUG-2005 (first entry)

XX DE Novel human polypeptide SEQ ID NO 768.

XX KW vulnery; CNS-gen.; gene therapy; diagnostic; forensic; mapping;
 KW DNA purification; protein purification; osteoarthritis; antiarthritic;
 KW osteopathic; musculoskeletal disease; osteoporosis; endocrine disease;
 KW periodontal disease; antiinflammatory; mouth disease; burns; injury;
 KW peripheral neuropathy; Alzheimers disease; neuroprotective; neurotic;
 KW degeneration; parkinsons disease; antiparkinsonian; neurological disease;
 KW cerebrovascular ischemia; cerebroprotective; vasotrophic;
 KW cardiovascular disease; autoimmune disease; immunosuppressive;
 KW immune disorder; viral infection; virucide; infection; cancer;
 KW cytostatic; neoplasm.

XX OS Homo sapiens.

XX PN WO2005049806-A2.

XX PD 02-JUN-2005.

XX PP 11-MAR-2004; 2004WO-US007412.

XX PR 14-MAR-2003; 2003US-00389559.

XX PA (NUVE-) NUVELO INC.

XX PI Tang TY, Wang J, Wang ZW, Zhang J, Ren F, Zhou P, Ma Y;
 PI Ghosh M, Xue A, Asundi V, Zhao Q, Wang D, Goodrich R, Chen R;
 PI Wehrman T, Weng G, Boyle B;

XX DR WPI; 2005-417730/42.

XX DR N-PSDB; AEA19507.

XX PT New polynucleotide encoding a polypeptide with biological activity,
 PT useful for treating a disease or disorder, e.g. osteoarthritis, burns,
 PT CNS and peripheral disease, stroke, autoimmune disorders, viral
 PT infection, or cancer.

XX PS Claim 20; SEQ ID NO 768; 500pp; English.

XX CC The invention describes a new isolated polynucleotide (I) encoding a
 CC polypeptide with biological activity comprising: a nucleotide sequence of
 CC SEQ ID NOS: 1-567 (fully defined); a nucleotide sequence that hybridizes
 CC to the sequence of (i) under stringent hybridization conditions; or a
 CC nucleotide sequence having greater than 99% sequence identity with the
 CC sequence of (i). Also described are: a(n) (expression)vector comprising
 CC (i); a host cell genetically engineered to comprise (i) operatively,
 CC associated with a regulatory sequence that modulates expression of the
 CC polynucleotide in the host cell; an isolated polypeptide comprising a

CC sequence of SEQ ID NOS: 568-1134 (fully defined), where the polypeptide
 CC is: a polypeptide encoded by (I); or a polypeptide encoded by a
 CC polynucleotide hybridizing under stringent conditions with any one of SEQ
 CC ID NOS: 1-567; a composition comprising the polypeptide of (3) and a
 CC carrier; an antibody directed against the polypeptide of (3); a method
 CC for detecting (I) in a sample; a method for detecting the polypeptide of
 CC (3) in a sample; a method for identifying a compound that binds to the
 CC polypeptide of (3); a method of producing the polypeptide of (3); and a
 CC collection of polynucleotides, where the collection comprising of at
 CC least one of SEQ ID NOS: 1-567. (I) is a polynucleotide comprising any of
 CC the sequences of SEQ ID NOS: 1-567 encoding a polypeptide with biological
 CC activity, which comprises any of the amino acid sequence of SEQ ID NOS:
 CC 568-1134. All sequences are fully defined in the specification. The
 CC sequences and methods are useful in diagnostics, forensic, and gene
 CC mapping, in identifying of mutations responsible for genetic disorders or
 CC other traits, in assessing biodiversity, and for producing many other
 CC types of data and products dependent on DNA and amino acid sequences. The
 CC composition and method are useful for treating a disease or disorder,
 CC e.g. osteoporosis, osteoarthritis, periodontal disease, burns, CNS and
 CC peripheral disease, Alzheimer's disease, Parkinson's disease, stroke,
 CC autoimmune disorders, viral infection, or cancer. This is the amino acid
 CC sequence of a novel polypeptide of the invention.

XX SQ Sequence 194 AA;

Query Match 100.0%; Score 60; DB 9; Length 194;

Best Local Similarity 100.0%; Pred. No. 0.02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10

|||||

Db 74 NYNFFPRKPK 83

RESULT 23

ADF59546

ID ADF59546 standard; protein; 445 AA.

XX AC ADF59546;

XX DT 12-FEB-2004 (first entry)

XX DE Human polypeptide sequence SEQ ID NO:1954.

XX KW biological activity; genetic engineering; hybridisation probe; oligomer;
 KW primer; chromosome mapping; gene mapping; recombinant protein production;
 KW human.

XX OS Homo sapiens.

XX PN WO2003080795-A2.

XX PD 02-OCT-2003.

XX PF 09-AUG-2002; 2002WO-US025485.

XX PR 09-AUG-2001; 2001US-0311261P.

XX PA (HYSE-) HYSEQ INC.

XX PI Tang YT, Yang Y, Wang Z, Weng G, Ma Y;

XX DR WPI; 2003-876918/81.

XX DR N-PSDB; ADF58546.

XX PT New polynucleotides, useful as hybridization probes, oligomers or
 PT primers, for chromosome or gene mapping, for the recombinant production
 PT of proteins, and for generating antisense DNA or RNA.

XX PS Claim 20; SEQ ID NO 1954; 571pp; English.

XX CC The present sequence represents a polypeptide (II) with biological
 CC activity, which is encoded by an isolated polynucleotide sequence (I)

CC from the present invention . Also described: (1) a vector comprising (I);
CC (2) an expression vector comprising (I); (3) a host cell genetically
CC engineered to comprise (I) which is operatively associated with a
CC regulatory sequence that modulates expression of (I) in the host cell;
CC (4) a polypeptide (II) encoded by (I); (5) a composition comprising the
CC polypeptide of (4) and a carrier; (6) an antibody directed against the
CC polypeptide of (4); (7) detecting (I) or the polypeptide of (4) in a
CC sample; (8) identifying a compound that binds to the polypeptide of (4);
CC (9) producing the polypeptide of (4); and (10) a collection of
CC polynucleotides comprising at least one of the polynucleotide sequences
CC (I). The polynucleotides (I) can be used as hybridisation probes,
CC oligomers or primers, for chromosome or gene mapping, for the recombinant
CC production of proteins, and for generating antisense DNA or RNA.

XX SQ Sequence 445 AA;

Query Match 100.0%; Score 60; DB 7; Length 445;
Best Local Similarity 100.0%; Pred. No. 0.046;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118
|||||

RESULT 24

AEA90447
ID AEA90447 standard; protein; 462 AA.

XX AC AEA90447;

DT 08-SEP-2005 (first entry)

XX Human lung specific protein, DEX0486_001.aa.1.

XX DNA hybridization; diagnosis; diagnostic; lung tumor; vaccine;
KW cytostatic; gene therapy; drug screening.

XX Homo sapiens.

OS US2005142572-A1.

PN 30-JUN-2005.

PD 24-MAY-2004; 2004US-00852707.

XX 22-MAY-2003; 2003US-0473941P.

XX (MACI/) MACINA R A.

PA (TURN/) TURNER L R.

PA (SUNY/) SUN Y.

XX Macina RA, Turner LR, Sun Y;

XX WPI; 2005-457785/46.

XX New nucleic acid molecule from Homo sapiens, useful for identifying,
PT diagnosing, monitoring, staging, imaging and treating a patient with lung
PT cancer and non-cancerous diseases.

XX Claim 12; SEQ ID NO 56; 247pp; English.

XX The present invention relates to human nucleic acid molecules that are
CC specific to lung cells, lung tissue and/or the lung organ. These lung
CC specific nucleic acids may be naturally occurring cDNA, genomic DNA, RNA
CC or a fragment, or a non-naturally occurring nucleic acid. Due to
CC alternative splicing and transcriptional modification one lung-specific
CC gene may encode for multiple lung specific RNA's. Specifically claimed is
CC new isolated nucleic acid molecule encoding a protein sequence selected
CC from 83 (SEQ ID NO: 56-138) sequences; and a nucleic acid selected from
CC 56 (SEQ ID NO: 1-55) sequences. Described is a method of determining the
CC presence of a lung specific nucleic acid or protein in a sample; and a
CC method of diagnosing or monitoring the presence and metastases of lung

CC cancer in a patient. Claimed is a vaccine comprising the polypeptide or
CC the nucleic acid encoding the polypeptide. Determining the presence of a
CC lung specific nucleic acid in a sample comprises contacting the sample
CC with a nucleic acid molecule above which will hybridize to a lung
CC specific nucleic acid. A composition consisting of the nucleic acid
CC molecule or the polypeptide is useful for treating a patient with lung
CC cancer, where the administration induces an immune response against the
CC lung cancer cell expressing the nucleic acid molecule or polypeptide. The
CC nucleic acid molecule and polypeptide are also useful for identifying,
CC diagnosing, monitoring, staging, imaging and treating non-cancerous
CC disease states in lung, identifying lung tissue, monitoring and
CC identifying and/or designing (ant)agonists of the polypeptide, and for
CC gene therapy. The present sequence is a human lung specific protein.

XX SQ Sequence 462 AA;

Query Match 100.0%; Score 60; DB 9; Length 462;
Best Local Similarity 100.0%; Pred. No. 0.048;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118
|||||

RESULT 25

ABG24001
ID ABG24001 standard; protein; 468 AA.

XX AC ABG24001;

DT 18-FEB-2002 (first entry)

XX Novel human diagnostic protein #23992.

XX Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW food supplement; medical imaging; diagnostic; genetic disorder.

XX Homo sapiens.

PN WO200175067-A2.

PD 11-OCT-2001.

XX 30-MAR-2001; 2001WO-US008631.

XX 31-MAR-2000; 2000US-00540217.

PR 23-AUG-2000; 2000US-00649167.

XX (HYSE-) HYSEQ INC.

PA Drmanac RT, Liu C, Tang YT;

XX WPI; 2001-639362/73.

XX N-PSDB; AAS88188.

XX New isolated polynucleotide and encoded polypeptides, useful in
PT diagnostics, forensics, gene mapping, identification of mutations
PT responsible for genetic disorders or other traits and to assess
PT biodiversity.

XX Claim 20; SEQ ID NO 54360; 103pp; English.

XX The invention relates to isolated polynucleotide (I) and polypeptide (II)
CC sequences. (I) is useful as hybridisation probes, polymerase chain
CC reaction (PCR) primers, oligomers, and for chromosome and gene mapping,
CC and in recombinant production of (II). The polynucleotides are also used
CC in diagnostics as expressed sequence tags for identifying expressed
CC genes. (I) is useful in gene therapy techniques to restore normal
CC activity of (II) or to treat disease states involving (II). (II) is
CC useful for generating antibodies against it, detecting or quantitating a
CC polypeptide in tissue, as molecular weight markers and as a food
CC supplement. (II) and its binding partners are useful in medical imaging

CC of sites expressing (II). (I) and (II) are useful for treating disorders
 CC involving aberrant protein expression or biological activity. The
 CC polypeptide and polynucleotide sequences have applications in
 CC diagnostics, forensics, gene mapping, identification of mutations
 CC responsible for genetic disorders or other traits to assess biodiversity
 CC and to produce other types of data and products dependent on DNA and
 CC amino acid sequences. ABG0010-ABG30377 represent novel human diagnostic
 CC amino acid sequences of the invention. Note: The sequence data for this
 CC patent did not appear in the printed specification, but was obtained in
 CC electronic format directly from WIPO at
 CC ftp.wipo.int/pub/published_pct_sequences
 XX
 SQ Sequence 468 AA;

Query Match 100.0%; Score 60; DB 4; Length 468;
 Best Local Similarity 100.0%; Pred. No. 0.048;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 NYNFFPRKPK 10
 Db 95 NYNFFPRKPK 104
 |||||

RESULT 26
 ABM84057
 ID ABM84057 standard; protein; 623 AA.
 XX
 AC ABM84057;
 XX
 DT 18-NOV-2004 (first entry)
 XX
 DE Human diagnostic and therapeutic pprotein SEQ ID NO:4306.
 XX
 KW gene therapy; human diagnostic and therapeutic polynucleotide; dithp.
 XX
 OS Homo sapiens.

XX WO2004023973-A2.
 XX 25-MAR-2004.
 XX
 PF 12-SEP-2003; 2003WO-US028227.
 XX
 PR 12-SEP-2002; 2002US-0410259P.
 PR 12-SEP-2002; 2002US-0410260P.
 XX
 PA (INCY-) INCYTE CORP.

XX Schmidt JP, Wright RJ, Bruns CM, Marjanovic MM, Shen F;
 PI Harthehorne TA, Suchorolski MT, Altus CM, Pitte SJ, Elder LV;
 PI Mooney EM, Delegeane AM, Panesar IS, Banville SC, Reddy TP;
 PI Stevens KA, Blanchard JL, Panzer SR, Wang X, Au AP, Gerstin EH;
 PI Paralta CH, Anderson SB, Rioux P, Shen EJ, Wu MC, Stuve LL;
 PI Lagace RE, Spiro PA, Stewart EA, Wingrove J, Vitt UA, Kirton ES;
 PI Xu Y, Kwong M, Policky JL, Hurwitz BL, Ma Y, Jackson JL, Gietzen D;
 PI Patury S, Shi X, Suarez CJ;
 XX
 DR WPI; 2004-329368/30.
 DR N-PSDB; ACN42709.

XX New diagnostic and therapeutic polynucleotides and polypeptides, useful
 XX in diagnosing a condition, disease or disorder associated with human
 XX molecules, e.g. autoimmune or inflammatory disorders, in gene therapy or
 XX in gene mapping.

XX Claim 27; Page; 190pp; English.
 XX
 CC The invention relates to novel diagnostic and therapeutic polynucleotides
 CC selected from one of the 2722 sequences defined in the specification. A
 CC polynucleotide of the invention may have a use in gene therapy. The human
 CC diagnostic and therapeutic polynucleotides (dithp) or polypeptides may be
 CC used to diagnose a particular condition, disease or disorder associated
 CC with human molecules, e.g. cell proliferative disorders,

CC autoimmune/inflammatory disorder, developmental disorder, endocrine
 CC disorder, neurological disorders, gastrointestinal disorders, or
 CC infections caused by virus, bacteria, fungi or parasite. The dithp
 CC molecules may also be used in genetic mapping, in identifying individuals
 CC from minute biological samples, in detecting single nucleotide
 CC polymorphisms, as molecular weight markers, and for somatic or germline
 CC gene therapy. The present sequence represents a dithp protein of the
 CC invention. Note: The sequence data for this patent is not represented in
 CC the printed specification, but was obtained in electronic format directly
 CC from WIPO at www.wipo.int/pct/en/sequences/listing.htm
 XX
 SQ Sequence 623 AA;

Query Match 100.0%; Score 60; DB 8; Length 623;
 Best Local Similarity 100.0%; Pred. No. 0.064;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 NYNFFPRKPK 10
 Db 109 NYNFFPRKPK 118
 |||||

RESULT 27
 AAP96143
 ID AAP96143 standard; protein; 631 AA.

XX AAP96143;
 XX
 DT 25-MAR-2003 (revised)
 DT 09-MAY-1991 (first entry)
 XX
 DE Sequence of human type IV collagenase (gelatinase) in pGEL 186.2.
 XX
 KW Hypertrophic scar; keloid; intervertebral disc disease; enzyme.

XX Homo sapiens.
 XX GB2209526-A.
 XX 17-MAY-1989.
 XX
 PF 02-SEP-1988; 88GB-00820803.
 XX
 PR 04-SEP-1987; 87US-00093421.
 XX
 PA (UNIW) UNIV WASHINGTON.
 XX
 PI Eisen AZ, Goldberg GI;
 XX WPI; 1989-147011/20.
 DR N-PSDB; AAN91700.

XX DNA encoding human type IV collagenase (gelatinase) - for use in the
 XX treatment of hypertrophic scars, keloids and intervertebral disc disease.
 XX Disclosure; Fig 3; 36pp; English.

XX The original source of the protein material was H-ras transformed human
 XX bronchial epithelial cells (TBB-1). The AA sequence was then used to
 XX develop oligonucleotide probes which were used to screen a cDNA library
 XX of human skin fibroblast mRNA. The longest clone, pGEL 186.2, represented
 XX almost the full gelatinase mRNA sequence except the leader sequence
 XX encoding the first few AA's of the signal peptide. (Updated on 25-MAR-
 XX 2003 to correct PF field.) (Updated on 25-MAR-2003 to correct PA field.)
 XX (Updated on 25-MAR-2003 to correct PI field.)

SQ Sequence 631 AA;

Query Match 100.0%; Score 60; DB 1; Length 631;
 Best Local Similarity 100.0%; Pred. No. 0.065;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 NYNFFPRKPK 10

CC Type IV procollagenase was purified from human A2058 melanoma cells. The
 CC complete amino acid sequence was determined (see also Hoyhtya, M. et al,
 CC (1988) PBBS Letters 233, 109-113). Based on this sequence, peptides were
 CC synthesised (see features) having homology with a histidine contg. domain
 CC at residues 371-386, a cysteine contg. domain at residues 200-370, the 80
 CC residue amino terminus or a region 159 residues from the carboxy
 CC terminus. These regions correspond to the domain of the enzyme involved
 CC in enzyme activation and interaction of the enzyme with the substrate.
 CC The peptides are useful in metalloproteinase detection and inhibition.
 CC They can be used in the treatment of inappropriate angiogenesis,
 CC arthritis, tumour growth, invasion and metastasis and granulomatous
 CC inflammatory conditions such as sarcoidosis. The peptides can be used to
 CC produce antibodies. Peptide 6, at concn. of 0.1 mM inhibited 80% of the
 CC enzyme activity. See also US7494796-A and WO9010228. (Note: Revised entry
 CC submitted to correct the patent number format of US Government-owned NTIS
 CC applications to prevent clashes with ongoing US granted patent numbers.
 CC For further information please visit the Derwent web site at
 CC www.derwent.com/dwpi/updates/ntis_us.html.) (Updated on 25-MAR-2003 to
 CC correct PA field.) (Updated on 25-MAR-2003 to correct PI field.)
 XX
 SQ Sequence 631 AA;

Query Match 100.0%; Score 60; DB 2; Length 631;
 Best Local Similarity 100.0%; Pred. No. 0.065;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
 |||||
 Db 80 NYNFFPRKPK 89

RESULT 30
 AAY07350
 ID AAY07350 standard; protein; 631 AA.

XX AC AAY07350;
 XX
 XX 25-MAR-2003 (revised)
 DT 16-JUL-1999 (first entry)
 XX
 DE Human type IV matrix metalloprotease protein.
 XX
 XX Matrix metalloprotease; inhibitor; tissue damage; angiogenesis; antibody;
 KW arthritis; tumour growth; granulomatous inflammatory condition; enzyme;
 KW metastasis; sarcoidosis.
 XX
 OS Homo sapiens.

XX Key Location/Qualifiers
 FH Misc-difference 452
 FT /note= "designated in specification as U"
 FT

XX
 FN WO9010228-A.
 PD 07-SEP-1990.
 XX
 XX 01-MAR-1989; 89US-00317407.
 XX
 PR 01-MAR-1989; 89US-00317407.
 PR 26-FEB-1990; 90US-00488460.
 XX
 PA (USDC) US SEC OF COMMERCE.
 PA (USSH) NAT INST OF HEALTH.
 XX
 PI Liotta LA, Stetlerste W, Krutzsch H;
 XX WPI; 1990-290458/38.
 XX
 PT Matrix metallo:proteinase peptide(s) - used to inhibit enzyme in treating
 PT tissue damage caused by activated enzyme.
 XX
 PS Disclosure; Fig 1; 61pp; English.
 XX

CC This sequence represents a human type IV matrix metalloprotease (MMP)
 CC zymogen (precursor protein). The invention relates to MMP inhibitor
 CC peptides which can be used to treat tissue damage caused by activated
 CC MMPs, e.g. for treating inappropriate angiogenesis, arthritis, tumour
 CC growth, invasion and metastasis and granulomatous inflammatory conditions
 CC such as sarcoidosis. Antibodies to the peptides can be used to detect the
 CC MMPs and can distinguish activated from latent enzyme. (Updated on 25-MAR
 CC -2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PA field.)
 CC (Updated on 25-MAR-2003 to correct PI field.)
 XX
 SQ Sequence 631 AA;

Query Match 100.0%; Score 60; DB 2; Length 631;
 Best Local Similarity 100.0%; Pred. No. 0.065;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
 |||||
 Db 80 NYNFFPRKPK 89

RESULT 31
 AAW41226
 ID AAW41226 standard; protein; 631 AA.

XX AC AAW41226;
 XX
 DT 09-JUN-1998 (first entry)
 XX
 DE Human mature matrix metalloprotease-2 (MMP-2) protein sequence.
 XX
 XX Matrix metalloprotease-2; MMP-2; alpha-v-beta-5 antagonist; treatment;
 KW vitronectin receptor; inhibition; angiogenesis; integrin; tumour growth;
 KW restenosis; neovascularisation.
 XX
 OS Homo sapiens.
 XX
 XX WO9745447-A1.
 XX
 PD 04-DEC-1997.
 XX
 XX 30-MAY-1997; 97WO-US009099.
 XX
 PR 31-MAY-1996; 96US-0015869P.
 PR 31-MAY-1996; 96US-0018733P.
 XX
 PA (SCRI) SCRIPPS RES INST.
 XX
 XX Brooks P, Cheresch DA, Friedlander M;
 XX WPI; 1998-041758/04.

XX Packaging material containing polypeptide antagonist of alphav, beta5
 PT integrin - used for inhibition of angiogenesis, and for treating tumours,
 PT inflammation, eye diseases etc.
 XX

PS Disclosure; Fig 16; 117pp; English.

XX The present sequence represents the mature protein of human matrix
 CC metalloprotease-2 (MMP-2). Fragments of this protein (AAW41228-33) are
 CC able to act as alpha-v-beta-5 antagonists. Alpha-v-beta-5 is a
 CC vitronectin receptor. Inhibitors of alpha-v-beta-5 can inhibit
 CC angiogenesis. The specification describes a novel labelled package that
 CC contains an inhibitor of angiogenesis i.e. an alpha-v-beta-5 antagonising
 CC polypeptide that binds to integrin alpha-v-beta-5 and includes a part of
 CC the C-terminal domain of MMP. The antagonists are used to inhibit
 CC angiogenesis in inflamed tissue, in solid tumours or metastases, and in a
 CC wide range of ocular disorders (e.g. diabetic or other forms of
 CC retinopathy, neovascular glaucoma, or corneal transplants). They are
 CC particularly used to induce regression or to inhibit growth of tumours.
 CC The alpha-v-beta-5 antagonists can also be used to treat restenosis
 CC caused by migration of smooth muscle cells following angioplasty and to
 CC reduce blood supply to selected tissues. The antagonists particularly

CC inhibit neovascularisation where this is induced by cytokines, e.g.
CC transforming growth factor alpha, epidermal growth factor or especially
CC vascular endothelial growth factor
XX
SQ Sequence 631 AA;
Query Match 100.0%; Score 60; DB 2; Length 631;
Best Local Similarity 100.0%; Pred. No. 0.065;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 NYNFFPRKPK 10
|||||
DB 80 NYNFFPRKPK 89
RESULT 32
ADM48668
ID ADM48668 standard; protein; 631 AA.
XX
AC ADM48668;
XX
DT 03-JUN-2004 (first entry)
DE Human matrix metalloproteinase-2 (MMP-2) protein.
XX
KW Cancer; metastasis; matrix metalloproteinase-2; MMP-2; vaccine;
KW immune response; gene therapy; cytostatic; enzyme; human.
XX
OS Homo sapiens.
XX US2003139345-A1.
XX
PD 24-JUL-2003.
XX
PF 23-JAN-2003; 2003US-00350258.
XX
PR 23-JAN-2002; 2002US-0351317P.
XX
PA (NETK/) NETKE S.
PA (NIED/) NIEDZWIECKI A.
PA (RATH/) RATH M.
XX
PI Netke S, Niedzwiecki A, Rath M;
XX
DR WPI; 2003-897356/82.
XX
XX New synthetic oligopeptide, useful for blocking or treating cancer
PT invasion and metastases in a human patient, particularly as a vaccine for
PT treating or preventing diagnosing brain cancer, lung cancer, skin cancer
PT or breast cancer.
XX
PS Example 1; Fig 1; 11pp; English.
XX
CC The present invention relates to novel synthetic oligopeptides effective
CC in blocking cancer invasion and metastasis. The invention relates to
CC matrix metalloproteinase-2 (MMP-2) peptides. The synthetic oligopeptides
CC are useful as pharmaceutical compositions for blocking or treating cancer
CC invasion and metastases in a human patient. In particular, they are
CC useful for treating brain cancer, lung cancer, skin cancer or breast
CC cancer. The oligopeptides are also useful as vaccines for preventing
CC these cancers, enhancing immune response or raising antibodies for assays
CC used to diagnose diseases involving matrix metalloproteinases or clinical
CC monitoring of the progression or regression of disease. They are also
CC useful in gene therapy. The present sequence is the human MMP-2 protein.
XX
SQ Sequence 631 AA;
Query Match 100.0%; Score 60; DB 7; Length 631;
Best Local Similarity 100.0%; Pred. No. 0.065;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 NYNFFPRKPK 10
|||||

DB 80 NYNFFPRKPK 89
RESULT 33
ADT05996
ID ADT05996 standard; protein; 631 AA.
XX
AC ADT05996;
XX
DT 30-DEC-2004 (first entry)
DE Human mature matrix metalloprotease (MMP-2).
XX
KW Angiogenesis inhibitor; integrin alpha-V beta-3 antagonist;
KW vitronectin receptor antagonist; neovascularisation; cancer; tumour;
KW inflammation; rheumatoid arthritis; retina; diabetic retinopathy;
KW restenosis; smooth muscle cell migration; angioplasty; antiangiogenic;
KW cytosolic; antiinflammatory; antiarthritic; antirheumatic;
KW ophthalmological; antidiabetic; vasotropic; muscular-gen.;
KW peptidomimetic; matrix metalloprotease 2; MMP-2; gelatinase; human;
KW enzyme.
XX
OS Homo sapiens.
XX
PH Key Location/Qualifiers
FT Region 410..631
FT Domain /note= "Corresponds to SEQ ID NO:17"
FT /label = Hemopexin domain
FT /note = Corresponds to SEQ ID NO:18
FT Region 439..546
FT /note= "Corresponds to SEQ ID NO:20"
FT Region 439..512
FT /note= "Corresponds to SEQ ID NO:19"
FT Region 510..631
FT /note= "Corresponds to SEQ ID NO:21"
FT Region 543..631
FT /note= "Corresponds to SEQ ID NO:22"
XX
PN WO2004087057-A2.
XX
PD 14-OCT-2004.
XX
PF 26-MAR-2004; 2004WO-US009321.
XX
PR 28-MAR-2003; 2003US-00402212.
XX (SCRI) SCRIPPS RES INST.
XX
PI Brooks PC, Cheresch DA;
XX
DR WPI; 2004-737508/72.
XX
PT Administration of composition comprising organic peptidomimetic alpha-v
PT beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue
PT angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
XX
PS Example 2; Fig 7A-C; 184pp; English.
XX
CC The invention relates to a method of inhibiting angiogenesis in a tissue
CC by the administration of a composition comprising an organic
CC peptidomimetic antagonist of integrin alpha-V beta-3 (vitronectin
CC receptor). The integrin alpha-V beta-3 antagonist and compositions
CC containing it are useful for inhibiting angiogenesis in a variety of
CC medical conditions. The antagonist may be used to induce the regression
CC of solid tumours or solid tumour metastases; to inhibit the growth of
CC solid tumours undergoing neovascularisation; to treat inflamed tissue in
CC which neovascularisation is occurring (e.g., in rheumatoid arthritis); to
CC treat neovascularisation in retinal tissue (e.g., in diabetic
CC retinopathy); to treat restenosis in a tissue by inhibiting smooth muscle
CC cell migration (such as that which occurs following angioplasty); and to
CC reduce the blood supply to a tissue required to support new growth of the
CC tissue. The present sequence represents human mature matrix

CC metalloprotease 2 (MMP-2, gelatinase) used in an example of the
 CC invention.

XX
 SQ Sequence 631 AA;

Query Match 100.0%; Score 60; DB 8; Length 631;
 Best Local Similarity 100.0%; Pred. No. 0.065;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
 |||||
 Db 80 NYNFFPRKPK 89

RESULT 34

ADT05997

ID ADT05997 standard; protein; 633 AA.

XX AC

ADT05997;

XX DT 30-DEC-2004 (first entry)

XX DE Mouse mature matrix metalloprotease (MMP-2).

XX KW Angiogenesis inhibitor; integrin alpha-V beta-3 antagonist;

XX KW vitronectin receptor antagonist; neovascularisation; cancer; tumour;

XX KW inflammation; rheumatoid arthritis; retina; diabetic retinopathy;

XX KW retinosis; smooth muscle cell migration; angioplasty; antiangiogenic;

XX KW cystostatic; antiinflammatory; antiarthritic; antirheumatic;

XX KW ophthalmological; antidiabetic; vasotropic; muscular-gen.;

XX KW peptidomimetic; matrix metalloprotease 2; MMP-2; gelatinase; mouse;

XX KW murine; enzyme.

XX OS Mus sp.

XX FH Key Location/Qualifiers

XX FT Domain 441..633

XX FT /label = Hemopexin_domain

XX FT

XX FT

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XX FT

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XX FT

CC metalloprotease 2 (MMP-2, gelatinase) used in an example of the
 CC invention.

XX
 SQ Sequence 633 AA;

Query Match 100.0%; Score 60; DB 8; Length 633;
 Best Local Similarity 100.0%; Pred. No. 0.065;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
 |||||
 Db 80 NYNFFPRKPK 89

RESULT 35

AAB20490

ID AAB20490 standard; protein; 644 AA.

XX AC

AAB20490;

XX DT 21-JUN-2001 (first entry)

XX DE Human matrix metalloprotease-2 (MMP-2).

XX KW Matrix metalloprotease-2; MMP-2; human; pain; analgesic;

XX KW nerve tissue damage; stroke; haemorrhage; reperfusion injury;

XX KW cerebral ischaemia; cerebral infarction; narcotic tolerance;

XX KW narcotic withdrawal.

XX OS Homo sapiens.

XX PN WO200126671-A1.

XX PN

XX PN

XX PN

XX PN

XX PN

XX PN

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Polypeptide for the treatment of pain and the reduction of tissue damage
 comprises an inhibitor of human matrix metalloprotease.

Claim 1; Fig 2; 61pp; English.

The present sequence is that of human matrix metalloprotease-2 (MMP-2),
 previously known as 72 kDa gelatinase and gelatinase A. MMP-2 is capable
 of degrading the extracellular matrix components of the basement
 membrane. The invention relates to methods for treating pain in a patient
 by administering a dual inhibitor of MMP-2 and MMP-9 (see AAB20491). The
 administration of an inhibitor of MMP-2 is useful for treating nerve
 tissue damage (claimed), where the patient is suffering from a disease or
 disorder selected from stroke, haemorrhage, reperfusion injury, cerebral
 ischaemia and cerebral infarction (claimed). The method is useful for
 treating a disease, disorder or nerve tissue damage selected from
 enhanced or exaggerated sensitivity to acute pain, burn pain, atypical
 facial pain, neuropathic pain, back pain, complex regional pain syndrome
 I and II, arthritic pain, sports injury pain, pain related to virus
 infection, post-herpetic neuralgia, phantom limb pain, labour pain,
 cancer pain, post-chemotherapy pain, post-operative pain, post-stroke
 pain, physiological pain, inflammatory pain, acute inflammatory
 conditions/visceral pain, neuralgia, painful diabetic retinopathy,
 traumatic nerve injury, and tolerance to narcotics or withdrawal from
 narcotics (claimed). MMP-2 polypeptides can also be used to screen for
 agonist or antagonist (inhibitor) compounds

```

SQ Sequence 644 AA;
Query Match 100.0%; Score 60; DB 4; Length 644;
Best Local Similarity 100.0%; Pred. No. 0.067;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 93 NYNFFPRKPK 102

RESULT 36
AAR06420
ID AAR06420 standard; protein; 660 AA.
XX AC AAR06420;
XX DT 25-MAR-2003 (revised)
XX DT 13-DEC-1990 (first entry)
XX Type IV collagenase cDNA product.
XX XX hypertrophic scars; keloids; intervertebral disc disease; ds.
XX XX Homo sapiens.
XX OS Homo sapiens.
XX PN US4923818-A.
XX PD 08-MAY-1990.
XX PF 15-MAY-1989; 89US-00352069.
XX PR 15-MAY-1989; 89US-00352069.
XX PA (UNIW ) UNIV WASHINGTON.
XX PI Goldberg GL, Eisen AZ;
XX DR WPI; 1990-245482/32.
XX DR N-PSDB; AAQ05620.
XX PT Recombinant human type IV collagenase - used in treatment of hypertrophic
XX PT scars, keloids and intervertebral disc disease.
XX PS Claim 3; Fig 9; 23pp; English.
XX CC cDNA clone enables production of type IV collagenase, useful in
XX CC catalyzing cleavage of extracellular matrix macromolecules, and in
XX CC treatment of hypertrophic scars, keloids and intervertebral disc disease.
XX CC (Updated on 25-MAR-2003 to correct PA field.)
XX SQ Sequence 660 AA;
Query Match 100.0%; Score 60; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.068;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118

RESULT 37
AAB84607
ID AAB84607 standard; protein; 660 AA.
XX AC AAB84607;
XX DT 05-SEP-2001 (first entry)
XX DE Amino acid sequence of matrix metalloproteinase gelatinase A.
XX XX Growth factor; protein inhibitor; protease; damaged tissue;

KW platelet-derived growth factor; PDGF; fibroblast growth factor; FGF;
KW connective tissue derived growth factor; CTGF; chrysalin; VEGF;
KW keratinocyte-derived growth factor; KGF; epidermal growth factor; EGF;
KW transforming growth factor-beta; TGF-beta; matrix metalloproteinase; MMP;
KW granulocyte macrophage colony stimulating factor; GM-CSF; uPA;
KW vascular endothelial growth factor; urokinase plasminogen activator;
KW dermal ulcer; wound.
XX OS Homo sapiens.
XX PN WO200149309-A2.
XX PD 12-JUL-2001.
XX PF 21-DEC-2000; 2000WO-IB001935.
XX PR 29-DEC-1999; 99GB-00030768.
XX PA (PFIZ ) PFIZER LTD.
XX PA (PFIZ ) PFIZER INC.
XX PI Davies MJ, Huggins JP, McIntosh FS, Occleston NL;
XX WPI; 2001-418351/44.
XX DR N-PSDB; AAH28222.
XX PT Composition for the treatment of damaged tissue i.e. chronic wounds and
XX PT dermal ulcers comprises an inhibitor agent i.e. a protease and a growth
XX PT factor.
XX PS Disclosure; Page 552; 572pp; English.
XX CC The specification describes a pharmaceutical composition, comprising a
XX CC growth factor, an inhibitor agent, i.e. a protease. The inhibitor agent
XX CC inhibits the action of at least one specific adverse protein, i.e. a
XX CC protease, that is upregulated in a damaged tissue such as a wound
XX CC environment. Growth factors which are included in the composition of the
XX CC invention are platelet-derived growth factor (PDGF), fibroblast growth
XX CC factor (FGF), connective tissue derived growth factor (CTGF),
XX CC keratinocyte-derived growth factor (KGF), transforming growth factor-beta
XX CC (TGF-beta), granulocyte macrophage colony stimulating factor (GM-CSF),
XX CC epidermal growth factor (EGF), vascular endothelial growth factor (VEGF),
XX CC and chrysalin. Inhibitors which are included in the composition of the
XX CC invention include inhibitors of urokinase-type plasminogen activator
XX CC (uPA) and matrix metalloproteinase (MMP). The composition is useful for
XX CC the treatment of chronic damaged tissue, i.e. wounds and dermal ulcers.
XX CC The present sequence represents a human MMP-2, and is used to produce the
XX CC composition of the invention
XX SQ Sequence 660 AA;
Query Match 100.0%; Score 60; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.068;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118

RESULT 38
AAE10431
ID AAE10431 standard; protein; 660 AA.
XX AC AAE10431;
XX DT 10-DEC-2001 (first entry)
XX DE Human matrix metalloproteinase-2 (MMP-2) protein.
XX XX Human; matrix metalloproteinase; MMP-2; hair growth; antisense therapy;
XX XX endopeptidase; skin cell; breast cancer; hair follicle; chromosome 11q22.
XX KW

```

OS Homo sapiens.
 XX Key Location/Qualifiers
 FH Peptide 1..27
 FT /label= Signal_peptide
 FT Protein 28..660
 FT Domain /label= Mature_MMP_2_protein
 FT 100..106
 FT /label= Cysteine_switch_domain
 FT 171..195
 FT /note= "Zinc and calcium binding domain"
 XX
 XX WO200166766-A2.
 PN
 XX
 XX 13-SEP-2001.
 PD
 XX
 XX 06-MAR-2001; 2001WO-US007167.
 XX
 XX 06-MAR-2000; 2000US-0187196P.
 PR
 XX (DARW-) DARWIN MOLECULAR CORP.
 PA (SCHA/) SCHATZMAN R.
 PA
 XX Fajardo M, Wang K, Smith R, Moss P;
 PI WPI; 2001-582276/65.
 XX
 XX Novel isolated matrix metalloproteinase-25 nucleic acid molecule and
 PT proteins encoded by them whose inhibition is useful for modulation of
 PT hair growth in mammals.
 PT
 XX Example 2; Fig 3; 119pp; English.
 PS
 XX The present sequence is human matrix metalloproteinase (MMP)-2 protein
 CC used in the exemplification of the invention. MMP-25 DNA is located on
 CC chromosome 11q22. Matrix metalloproteinases are a family of zinc
 CC dependent endopeptidases that function extracellularly to degrade
 CC proteins typically found in the extracellular matrix. MMP-25 is expressed
 CC in skin cells of mammals, particularly in breast cells and hair
 CC follicles. MMP-25 DNA is useful for identifying a nucleic acid molecule
 CC encoding all or part of MMP by hybridising MMP-25 to a nucleic acid
 CC sample and identifying a sequence that hybridises in the nucleic acid
 CC sample. The identification step involves performing polymerase chain
 CC reaction (PCR) to amplify the hybridising sequence. MMP-25 antibody is
 CC useful for identifying type 25 MMP. MMP-25 protein inhibitors may be used
 CC to modulate hair growth and breast cancer in a mammal
 XX
 SQ Sequence 660 AA;
 Query Match 100.0%; Score 60; DB 4; Length 660;
 Best Local Similarity 100.0%; Pred. No. 0.068;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 NYNFFPRKPK 10
 Db 109 NYNFFPRKPK 118
 RESULT 39
 ID ABB79413
 ID ABB79413 standard; protein; 660 AA.
 XX
 AC ABB79413;
 XX
 DT 08-JUL-2002 (first entry)
 XX
 XX Human matrix metalloproteinase 2 protein.
 DE
 XX Human; matrix metalloproteinase-2; MMP-2; enzyme; thrombolytic;
 KW anticoagulant; cardiant; antiarteriosclerotic; cytostatic; osteopathic;
 KW antiinflammatory; antibacterial; virucide; fungicide; antipsoriatic;
 KW vulnerary; cerebroprotective; antiangiinal; ophthalmological;
 KW antirheumatic; antiarthritic; antiulcer; vasotropic; nephrotropic;
 KW

alpha-v-beta-3 integrin receptor; thrombosis; tumour; osteoporosis;
 infection; veterinary medicine; rheumatoid arthritis; Crohn's disease;
 antimicrobial; antiseptic.
 OS Homo sapiens.
 XX Key Location/Qualifiers
 FH Domain 466..660
 FT /label= PEX
 FT Binding-site 489..497
 FT /label= alpha-v-beta-3_integrin_receptor_binding_site
 FT Binding-site 570..585
 FT /label= alpha-v-beta-3_integrin_receptor_binding_site
 FT Binding-site 588..597
 FT /label= alpha-v-beta-3_integrin_receptor_binding_site
 XX
 XX WO200220566-A2.
 PN
 XX
 XX 14-MAR-2002.
 PD
 XX
 XX 28-AUG-2001; 2001WO-EP009899.
 PR
 XX 07-SEP-2000; 2000DE-01044325.
 PR (MERE) MERCK PATENT GMBH.
 XX
 XX Jonczyk A, Diefenbach B, Groth U, Zischinsky G;
 PI WPI; 2002-329869/36.
 XX
 XX New matrix metalloproteinase-2 derivative peptides, are alpha-v-beta-3
 PT integrin receptor inhibitors useful e.g. for treating thrombosis, cardiac
 PT infarction, tumors, osteoporosis, inflammation or infections.
 PT
 XX Disclosure; Page 11; 35pp; German.
 PS
 XX The invention relates to peptides (ABB79414-ABB79426) derived from the C-
 CC terminal fragment PEX of matrix metalloproteinase-2 (MMP-2). Matrix MMP-2
 CC derivatives of formula X-Y-Z (I) and their salts and solvates are
 CC described. X = H, 1-10C alkanyl or peptide fragment consisting of 1-20
 CC naturally occurring amino acid residues; Y = peptide fragment selected
 CC from the sequence region 466-660 of human pro-MMP-2; and Z = OH, NH 2, NH
 CC -1-10C alkyl N(1-10C alkyl) 2 or peptide fragment consisting of 1-20
 CC naturally occurring amino acid residues. Primary amino groups are
 CC optionally protected conventionally. The peptides and MMP-2 derivatives
 CC are used for combating diseases involving interaction of ligands
 CC (specifically MMP-2) with the alpha-v-beta-3 integrin receptor,
 CC especially pathological processes supported or propagated by
 CC angiogenesis, thrombosis, cardiac infarction, coronary heart disease,
 CC arteriosclerosis, tumours, osteoporosis, fibrosis, inflammation,
 CC infections, psoriasis or wound healing deficiency. More generally the
 CC peptides and MMP-2 derivatives are useful in human and veterinary
 CC medicine for the treatment and/or prophylaxis of thrombosis, myocardial
 CC infarction, apoplexy, angina pectoris, tumour diseases, osteolytic
 CC diseases (e.g. osteoporosis or hypercalcaemia), pathological angiogenic
 CC diseases (e.g. inflammation), ophthalmological diseases (e.g. diabetic
 CC retinopathy, macular degeneration, myopia, ocular histoplasmosis or
 CC rubrotic glaucoma), rheumatoid arthritis, osteoarthritis, ulcerative
 CC colitis, Crohn's disease, atherosclerosis, psoriasis, restenosis after
 CC angioplasty, viral, bacterial or fungal infections, acute renal failure
 CC or wound healing deficiency; as antimicrobial/antiseptic agents in
 CC operations involving biomaterials, implants, catheters or cardiac
 CC pacemakers; or as diagnostic agents or reagents. The present sequence is
 CC that of the human MMP-2 protein
 XX
 SQ Sequence 660 AA;
 Query Match 100.0%; Score 60; DB 5; Length 660;
 Best Local Similarity 100.0%; Pred. No. 0.068;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 NYNFFPRKPK 10
 |||||

```

Db      109 NYNFFPRKPK 118

RESULT 40
ABB90738
ID ABB90738 standard; protein; 660 AA.
XX
XX ABB90738;
XX
XX 30-MAY-2002 (first entry)
XX
XX Human Tumour Endothelial Marker polypeptide SEQ ID NO 208.
XX
XX Human; mouse; rat; TEM; tumour endothelial marker; NEM; PEM; cytostatic;
XX normal endothelial marker; pan-endothelial marker; immunostimulant;
XX antiangiogenic; tumour; neoangiogenesis; vascularised tumour;
XX polycystic kidney disease; diabetes; retinopathy; rheumatoid arthritis;
XX psoriasis.
XX
XX Homo sapiens.
XX
XX WO200210217-A2.
XX
XX 07-FEB-2002.
XX
XX 01-AUG-2001; 2001WO-US024031.
XX
XX 02-AUG-2000; 2000US-0222599P.
XX
XX 11-AUG-2000; 2000US-0224360P.
XX
XX 11-APR-2001; 2001US-0282850P.
XX
XX (UYJO ) UNIV JOHNS HOPKINS.
XX
XX St Croix B, Kinzler KW, Vogelstein B;
XX
XX WPI; 2002-291856/33.
XX
XX N-PSDB; ABL92092.
XX
XX An isolated molecule comprising an antibody variable region which
XX specifically binds to an extracellular domain of a tumor endothelial
XX marker (TEM) protein, useful for inhibiting tumor growth.
XX
XX Claim 54; Page 166-168; 331pp; English.
XX
XX The invention relates to an isolated molecule comprising an antibody
XX variable region which specifically binds to an extracellular domain of a
XX tumour endothelial marker (TEM) protein selected from ABB90732, ABB90740,
XX ABB90749, ABB90750 and ABB90769. The antibodies which bind to TEM
XX proteins have cytostatic, immunostimulant and antiangiogenic activity.
XX They are useful for inhibiting tumour growth, neoangiogenesis in subjects
XX bearing a vascularised tumour, polycystic kidney disease, diabetic
XX retinopathy, rheumatoid arthritis and psoriasis. Human, mouse and rat TEM
XX genes and the encoded proteins (ABL92075-ABL92141 and ABB90721-ABB90789)
XX are disclosed, as are marker oligonucleotide sequences: tumour
XX endothelial markers (TEM) ABL91996-ABL92041 and ABL92143-ABL92191; normal
XX endothelial markers (NEM) ABL92042-ABL92074; and pan-endothelial markers
XX (PEM) ABL91903-ABL91995
XX
XX Sequence 660 AA;

Query Match      100.0%; Score 60; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.068;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYNFFPRKPK 10
        |||||
Db      109 NYNFFPRKPK 118

RESULT 42
ABU54445
ID ABU54445 standard; protein; 660 AA.
XX
XX ABU54445;
XX
XX 12-MAR-2003 (first entry)
XX
XX Human tumour endothelial marker TEM 7.
XX
XX Human; endothelial cell; EC; tumour endothelial cell; TEM; NEM;
XX Tumour endothelial marker; normal endothelial marker; PEM;
XX pan-endothelial marker; polycystic kidney disease; psoriasis;
XX diabetic retinopathy; rheumatoid arthritis; tumour angiogenesis;

```

```

AC      AAU84348;
XX
XX 08-MAY-2002 (first entry)
XX
XX Protein MMP2 differentially expressed in breast cancer tissue.
XX
XX Human; diagnosis of breast cancer; endometrial cancer; breast tumour;
XX MAI; mitotic activity index; cytostatic.
XX
XX Homo sapiens.
XX
XX WO200210436-A2.
XX
XX 07-FEB-2002.
XX
XX 27-JUL-2001; 2001WO-US023642.
XX
XX 28-JUL-2000; 2000US-0222093P.
XX
XX (SGHM ) BRIGHAM & WOMENS HOSPITAL INC.
XX (BAAK/) BAAK J.
XX
XX Baak J, Mutter GL;
XX
XX WPI; 2002-180084/23.
XX
XX N-PSDB; ABK35568.
XX
XX Diagnosing breast cancer comprises determining expression of nucleic acid
XX molecules or expression products that are differentially expressed in
XX normal and malignant tissue.
XX
XX Claim 37; Page 185-187; 219pp; English.
XX
XX The present invention relates to a method for diagnosing breast cancer in
XX a subject suspected of having endometrial cancer. The method comprises
XX determining the expression of a set of human genes or expression products
XX in an endometrial sample suspected of being cancerous. The human genes of
XX the invention are differentially expressed in breast tumours
XX characterised as high or low MAI (mitotic activity index). These sets of
XX genes can be used to discriminate between high and low MAI breast
XX tumours. The invention also provides DNA and protein microarrays for
XX analysing the expression of the human genes and their protein products.
XX The methods and arrays are useful for the diagnosis and prognosis of
XX endometrial cancer, selecting and monitoring treatment regimes, and
XX identification of compounds useful for the treatment of endometrial
XX cancer. AAU84311-AAU84361 represent the human proteins of the invention
XX that are differentially expressed in breast cancer tissue
XX
XX Sequence 660 AA;

Query Match      100.0%; Score 60; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.068;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYNFFPRKPK 10
        |||||
Db      109 NYNFFPRKPK 118

RESULT 42
ABU54445
ID ABU54445 standard; protein; 660 AA.
XX
XX ABU54445;
XX
XX 12-MAR-2003 (first entry)
XX
XX Human tumour endothelial marker TEM 7.
XX
XX Human; endothelial cell; EC; tumour endothelial cell; TEM; NEM;
XX Tumour endothelial marker; normal endothelial marker; PEM;
XX pan-endothelial marker; polycystic kidney disease; psoriasis;
XX diabetic retinopathy; rheumatoid arthritis; tumour angiogenesis;

```

KW neoangiogenesis; immune response; cytostatic; antidiabetic;
 KW ophthalmological; antirheumatic; antiarthritic; antipsoriatic.

OS Homo sapiens.

XX WO20028374-A2.

XX 24-OCT-2002.

XX 10-APR-2002; 2002WO-US008253.

XX 11-APR-2001; 2001US-0282850P.

PR 06-FEB-2002; 2002US-0354262P.

XX (UWJO) UNIV JOHNS HOPKINS.

XX Carson-Walter E, St Croix B, Kinzler KW, Vogelstein B;

XX WPI; 2003-093016/08.

DR N-PSDB; ABX72017.

XX New purified human transmembrane protein, designated as tumor endothelial
 PT marker (TEM) 3, useful for detecting, diagnosing or treating tumors,
 PT polycystic kidney disease, diabetic retinopathy, rheumatoid arthritis or
 PT psoriasis.

XX Disclosure; Page 173-174; 374pp; English.

XX The present invention relates to a novel method for the isolation of
 CC endothelial cells (ECs), and the identification of genes expressed in
 CC normal and tumor ECs. Tumour endothelial marker (TEM), normal
 CC endothelial marker (NEM), and pan-endothelial marker (PEM) genes are
 CC identified in human ECs. The human EC marker proteins and the
 CC polynucleotide sequences encoding them are useful for detecting,
 CC diagnosing or treating tumors as well as polycystic kidney disease,
 CC diabetic retinopathy, rheumatoid arthritis, and psoriasis. They are also
 CC useful for inhibiting neoangiogenesis or tumour angiogenesis, for
 CC inducing an immune response to tumour endothelial cells in a patient, or
 CC for identifying candidate drugs for treating tumors. The present
 CC sequence represents a human TEM or NEM protein of the invention

XX Sequence 660 AA;

Query Match 100.0%; Score 60; DB 6; Length 660;

Best Local Similarity 100.0%; Pred. No. 0.068;

Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10

Db 109 NYNFFPRKPK 118

RESULT 43

ABP97136

ID ABP97136 standard; protein; 660 AA.

XX AC ABP97136;

XX 24-JUN-2003 (first entry)

XX Human matrix metalloproteinase 2 protein SEQ ID NO:14.

XX Human; matrix metalloproteinase; MMP; anticancer; wound healing;
 KW matrix metalloproteinase inhibitor; antitumor; antiangiogenic; cardiant;
 KW vascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic;
 KW vulnary; cerebroprotective; antidiabetic; ophthalmological; tumour;
 KW dermatological; metastatic; non-metastatic; vascularised; heart disease;
 KW non-vascularised; surgical incision; chronic wound; stroke; angiogenesis;
 KW macular degeneration; diabetic retinopathy; cleavage region.

XX Homo sapiens.

XX WO2003018748-A2.

XX 06-MAR-2003.
 XX 15-AUG-2002; 2002WO-US026319.
 XX 16-AUG-2001; 2001US-0312726P.
 PR 21-DEC-2001; 2001US-00032376.
 PR 21-MAY-2002; 2002US-00153185.
 XX (KIMB) KIMBERLY-CLARK WORLDWIDE INC.

XX Quirk S, Weart IF;

XX WPI; 2003-381408/36.

XX Anti-angiogenic composition comprising peptide inhibitor of matrix
 PT metalloproteinase, useful for decreasing the expression of vascular
 PT endothelial growth factor and treating cancers and tissue injuries.

XX Example 1; Page 43-44; 103pp; English.

XX The present invention describes an anti-angiogenic composition (I) for
 CC inhibiting expression of vascular endothelial growth factor (VEGF). (I)
 CC comprises an effective amount of a peptide inhibitor of matrix
 CC metalloproteinase (MMP), where the peptide can inhibit the expression of
 CC VEGF. (I) has cytostatic, vulnary, cardiant, cerebroprotective,
 CC antidiabetic, ophthalmological and dermatological activities. (I) can be
 CC used for inhibiting expression of VEGF, and so can be used for inhibiting
 CC growth of tumours and diminishing tumours size. The tumour can be
 CC metastatic, non-metastatic, vascularised, non-vascularised, hard or soft.
 CC (I) is also useful for treating injuries including wounds, surgical
 CC incisions, chronic wounds, heart diseases and stroke. (I) is also useful
 CC for treating disorders characterised by excessive angiogenesis e.g.
 CC macular degeneration and diabetic retinopathy. The present sequence
 CC represents the human MMP-2 protein, which is used in the exemplification
 CC of the present invention

XX Sequence 660 AA;

Query Match 100.0%; Score 60; DB 6; Length 660;

Best Local Similarity 100.0%; Pred. No. 0.068;

Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10

Db 109 NYNFFPRKPK 118

RESULT 44

AAO16608

ID AAO16608 standard; protein; 660 AA.

XX AAO16608;

XX 08-MAY-2003 (first entry)

XX Human matrix metalloproteinase 2 (MMP2) gelatinase protein.

XX Human; enzyme; crystalline polypeptide; matrix metalloproteinase 9; MMP9;
 KW gelatinase; metalloproteinase mediated disease; drug design; arthritis;
 KW three-dimensional structure; MMP9 inhibitor; tumour growth;
 KW cancer metastasis; osteoarthritis; atherosclerosis; restenosis;
 KW periodontitis; multiple sclerosis; glomerulonephritis; MMP9 modulator;
 KW graft-versus-host disease; non-insulin dependent diabetes; MMP2;
 KW matrix metalloproteinase 2.

OS Homo sapiens.

XX WO2003002729-A1.

XX 09-JAN-2003.

XX 24-JUN-2002; 2002WO-SB001266.

```
XX PR 27-JUN-2001; 2001SE-00002298.
XX PA (ASTR ) ASTRAZENECA AB.
XX PI Jepson H, Minshull C, Paupit R, Rowsell S;
XX XX WPI; 2003-201502/19.
XX PT Novel crystalline form of a polypeptide corresponding to the catalytic
XX PT domain of matrix metalloproteinase 9 protein, useful for selecting or
XX PT designing chemical modulators which are used for treating diabetes,
XX PT cancer, arthritis.
XX PS Disclosure; Fig 7; 227pp; English.
XX CC The invention comprises a crystalline form of a polypeptide corresponding
XX CC to the catalytic domain of matrix metalloproteinase 9 (MMP9) protein - a
XX CC gelatinase. The crystalline polypeptide of the invention is useful for
XX CC treating a metalloproteinase mediated disease or condition in a warm-
XX CC blooded animal. The crystalline polypeptide is also useful for
XX CC determining the three-dimensional structure of the MMP9 catalytic domain
XX CC to high resolution. The three-dimensional structure of the MMP9 catalytic
XX CC domain is useful for rational drug design, and the atomic coordinates of
XX CC the catalytic domain of MMP9 are useful for selecting or designing
XX CC chemical modulators (preferably inhibitors) of MMP9. The crystalline
XX CC polypeptide of the invention is useful in the treatment of a
XX CC metalloproteinase mediated disease or condition, such as: tumour growth;
XX CC metastasis in cancer; arthritis; osteoarthritis; atherosclerosis;
XX CC restenosis; periodontitis; multiple sclerosis; glomerulonephritis; graft-
XX CC versus-host disease; and non-insulin dependent diabetes. The present
XX CC amino acid sequence represents a human matrix metalloproteinase 2 (MMP2)
XX CC protein
XX SQ Sequence 660 AA;
    Query Match      100.0%; Score 60; DB 6; Length 660;
    Best Local Similarity 100.0%; Pred. No. 0.068;
    Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
    QY 1 NYNFFPRKPK 10
    Db 109 NYNFFPRKPK 118
        |||||
RESULT 46
ADD18578
ID ADD18578 standard; protein; 660 AA.
XX AC ADD18578;
XX XX
XX DT 15-JAN-2004 (first entry)
XX DE Human disease related protein SeqID9.
XX KW human; disease state; cytostatic; antiinflammatory; ophthalmological;
XX KW antiarteriosclerotic; vulnerary; gene therapy;
XX KW hypoxia-regulated condition; tumourigenesis; angiogenesis; apoptosis;
XX KW inflammation; erythropoiesis; glycolysis; gluconeogenesis;
XX KW glucose transport; catecholamine synthesis; iron transport;
XX KW nitric oxide synthesis; cancer; ischaemic condition; reperfusion injury;
XX KW retinopathy; neonatal stress; pre-eclampsia; atherosclerosis;
XX XX inflammatory condition; wound healing.
XX OS Homo sapiens.
XX XX
XX PN WO2003018621-A2.
XX XX
XX PD 06-MAR-2003.
XX XX
XX PF 23-AUG-2002; 2002WO-GB003892.
XX XX
XX PR 23-AUG-2001; 2001GB-00020558.
XX PR 05-OCT-2001; 2001GB-00024037.
XX XX
XX PA (OXFO-) OXFORD BIOMEDICA UK LTD.
XX XX
XX PI Kingman SM, White J, Ward NR, Harris RA, Naylor S, Mundy CR;
XX XX WPI; 2003-290046/28.
XX DR N-PSDB; ADD18579.
XX XX
XX PT New substantially purified polypeptide, useful for diagnosing or treating
XX PT a hypoxia-regulated condition, such as cancer, ischemia, reperfusion
XX PT injury, retinopathy, pre-eclampsia, atherosclerosis, inflammation, or
XX PT wound healing.
XX PA (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.

XX PR 27-JUN-2001; 2001SE-00002298.
XX PA (ASTR ) ASTRAZENECA AB.
XX PI Jepson H, Minshull C, Paupit R, Rowsell S;
XX XX WPI; 2003-201502/19.
XX PT Novel crystalline form of a polypeptide corresponding to the catalytic
XX PT domain of matrix metalloproteinase 9 protein, useful for selecting or
XX PT designing chemical modulators which are used for treating diabetes,
XX PT cancer, arthritis.
XX PS Disclosure; Fig 7; 227pp; English.
XX CC The invention comprises a crystalline form of a polypeptide corresponding
XX CC to the catalytic domain of matrix metalloproteinase 9 (MMP9) protein - a
XX CC gelatinase. The crystalline polypeptide of the invention is useful for
XX CC treating a metalloproteinase mediated disease or condition in a warm-
XX CC blooded animal. The crystalline polypeptide is also useful for
XX CC determining the three-dimensional structure of the MMP9 catalytic domain
XX CC to high resolution. The three-dimensional structure of the MMP9 catalytic
XX CC domain is useful for rational drug design, and the atomic coordinates of
XX CC the catalytic domain of MMP9 are useful for selecting or designing
XX CC chemical modulators (preferably inhibitors) of MMP9. The crystalline
XX CC polypeptide of the invention is useful in the treatment of a
XX CC metalloproteinase mediated disease or condition, such as: tumour growth;
XX CC metastasis in cancer; arthritis; osteoarthritis; atherosclerosis;
XX CC restenosis; periodontitis; multiple sclerosis; glomerulonephritis; graft-
XX CC versus-host disease; and non-insulin dependent diabetes. The present
XX CC amino acid sequence represents a human matrix metalloproteinase 2 (MMP2)
XX CC protein
XX SQ Sequence 660 AA;
    Query Match      100.0%; Score 60; DB 6; Length 660;
    Best Local Similarity 100.0%; Pred. No. 0.068;
    Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
    QY 1 NYNFFPRKPK 10
    Db 109 NYNFFPRKPK 118
        |||||
RESULT 46
ABG76322
ID ABG76322 standard; protein; 660 AA.
XX AC ABG76322;
XX XX
XX DT 10-MAY-2003 (first entry)
XX DE Human matrix metalloproteinase-2 (MMP-2).
XX XX
XX KW Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2;
XX KW cleavage region; proenzyme form; cellular proliferation; fibroblast;
XX KW keratinocyte; healthy skin development; wound healing; scarring;
XX KW skin tone; wrinkle; anti-aging; vulnerary.
XX OS Homo sapiens.
XX XX
XX PN WO2003016520-A1.
XX XX
XX PD 27-FEB-2003.
XX XX
XX PF 15-AUG-2002; 2002WO-US026198.
XX XX
XX PR 16-AUG-2001; 2001US-0312726P.
XX PR 21-DEC-2001; 2001US-00032376.
XX PR 21-MAY-2002; 2002US-00153185.
XX XX
XX PA (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
```


XX Claim 25; SEQ ID NO 9; 424pp; English.

XX This invention relates to novel human genes and gene product which are

CC implicated in certain disease states. Compounds which modulate the

CC proteins of the invention may have cytostatic, antiinflammatory,

CC ophthalmological, antiarteriosclerotic or vulnerary activities. The

CC sequences of the invention may be useful for gene therapy. The invention

CC may be useful for diagnosing or treating a hypoxia-regulated condition,

CC such as tumorigenesis, angiogenesis, apoptosis, inflammation,

CC erythropoiesis, or the biological response to hypoxia conditions

CC including processes such as glycolysis, gluconeogenesis, glucose

CC transportation, catecholamine synthesis, iron transport or nitric oxide

CC synthesis. The disease includes cancer, ischaemic conditions, reperfusion

CC injury, retinopathy, neonatal stress, pre-eclampsia, atherosclerosis,

CC inflammatory conditions or wound healing. The present sequence is that of

CC a disease related protein of the invention.

XX SQ Sequence 660 AA;

Query Match 100.0%; Score 60; DB 7; Length 660;

Best Local Similarity 100.0%; Pred. No. 0.068;

Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10

Db 109 NYNFFPRKPK 118

RESULT 47

ID ADP65244 standard; protein; 660 AA.

AC ADP65244;

XX 12-AUG-2004 (first entry)

XX Human matrix metalloproteinase 2 preproprotein, gelatinase A, 72kd type.

XX autoimmune disease; arthritis; gene expression analysis;

KW rheumatoid arthritis; collagen-induced; immunosuppressive; antirheumatic;

KW antiarthritic; osteopathic; antigout; antiinflammatory; dermatological;

KW immunomodulatory; lupus; ankylosing spondylitis; Fibrositis;

KW fibromyalgia; osteoarthritis; gout; juvenile rheumatoid arthritis;

KW immune; human.

XX Homo sapiens.

XX WO2003072827-A1.

XX 04-SEP-2003.

XX 31-OCT-2002; 2002WO-US035433.

XX 31-OCT-2001; 2001US-0336220P.

XX (CHIL-) CHILDREN'S HOSPITAL MEDICAL CENT.

XX Hirsch R, Thorton SL;

XX WPI; 2003-712740/67.

XX GENBANK; NP_004521.

XX Diagnosing and analyzing autoimmune disease using gene expression

PT profiles and microarray technology, useful for diagnosing and treating

PT rheumatoid arthritis, lupus, fibrositis, osteoarthritis, fibromyalgia and

PT gout.

PS Disclosure; Page; 56pp; English.

XX The invention relates to a novel method for diagnosing and analysing

CC autoimmune disease or arthritides. The method comprises obtaining a

CC patient sample containing mRNA, analysing gene expression using the mRNA

CC that results in a gene expression signature of the mRNA, and using that

CC gene expression signature to diagnose or analyse the autoimmune disease

CC or arthritides in the patient, where gene expression of at least 60% of

CC the genes correlates with that of the gene signature. The invention

CC further comprises: a treatment of rheumatoid arthritis; identification of

CC genes for targeting in the treatment of rheumatoid arthritis in a mammal

CC other than a mouse; diagnosis of rheumatoid arthritis in a mammal; an

CC array or gene chip, specific for rheumatoid arthritis; diagnosis or

CC analyses of autoimmune disease or rheumatoid arthritis; screening the

CC efficacy of a candidate drug in vitro for the treatment of collagen-

CC induced arthritis; and reducing the symptoms associated with collagen-

CC induced arthritis. The compositions of the invention have the following

CC activities: immunosuppressive, antirheumatic, antiarthritic, osteopathic,

CC antigout, antiinflammatory, dermatological, and immunomodulatory. The

CC methods and compositions of the present invention are useful for

CC diagnosing and treating autoimmune disease or arthritides, such as

CC rheumatoid arthritis, lupus, ankylosing spondylitis, fibrositis,

CC fibromyalgia, osteoarthritis, gout, juvenile rheumatoid arthritis, and an

CC immune disease caused by an infectious agent. This sequence represents a

CC protein sequence relating to the genes used in the analysis and treatment

CC of autoimmune diseases or arthritides. Note: This sequence is not shown

CC in the specification. It has been supplied in an electronic format from

CC WIPO.

XX SQ Sequence 660 AA;

Query Match 100.0%; Score 60; DB 7; Length 660;

Best Local Similarity 100.0%; Pred. No. 0.068;

Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10

Db 109 NYNFFPRKPK 118

RESULT 48

ADN07697

ID ADN07697 standard; protein; 660 AA.

AC ADN07697;

XX 01-JUL-2004 (first entry)

XX Human matrix metalloproteinase 2 protein.

XX Protease; stem cell; bone marrow failure disorder; aplastic anaemia;

KW myeloproliferative disorder; multiple myeloma; gene therapy; human;

KW matrix metalloproteinase; MMP; enzyme.

XX Homo sapiens.

XX US2004071687-A1.

XX 15-APR-2004.

XX 28-MAY-2003; 2003US-00447315.

XX 28-MAY-2002; 2002US-0383658P.

XX (RAFI/) RAFII S.

XX (HEIS/) HEISSIG B.

XX (HATT/) HATTORI K.

XX Rafii S, Heissig B, Hattori K;

XX WPI; 2004-328523/30.

XX N-PSDB; ADN07698.

XX GENBANK; 11342666.

XX Recruiting adult stem cells in an animal for treating aplastic anemia or

PT multiple myeloma by administering a protease or its activator so that the

PT stem cells can proliferate, self-renew, differentiate or mobilize to a

PT target site.

XX
PS Disclosure; SEQ ID NO 3; 77pp; English.
XX

CC The present invention relates to the use of proteases to recruit stem
CC cells from the niches they normally occupy. The invention is useful for
CC recruiting adult stem cells for treating bone marrow failure disorder
CC such as aplastic anaemia and myeloproliferative disorder such as multiple
CC myeloma. The invention is also useful in gene therapy. The present
CC sequence is human matrix metalloproteinase (MMP) protein.
XX
SQ Sequence 660 AA;

Query Match 100.0%; Score 60; DB 8; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.068;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118
|||||

RESULT 49
ADQ17097
ID ADQ17097 standard; protein; 660 AA.
XX
AC ADQ17097;
XX
XX 23-SEP-2004 (first entry)
XX
XX Human matrix metalloproteinase-2 (MMP2) protein.
XX
XX Fibronectin; healthy skin; wrinkle; wound; vulnery; dermatological;
KW human; matrix metalloproteinase; MMP.
XX
XX Homo sapiens.
XX
XX US2004127421-A1.
XX
XX 01-JUL-2004.
XX
XX 30-DEC-2002; 2002US-00335207.
XX
XX 30-DEC-2002; 2002US-00335207.
XX
XX (MALI//) MALIK S.
XX (QUIR//) QUIRK S.
XX
XX Malik S, Quirk S;
XX
XX WPI; 2004-506456/48.
XX
XX Composition used for preventing and treating wrinkles and treating wounds
XX comprises peptide having sequence related to matrix metalloproteinase
XX proenzyme.
XX
XX Example 1; SEQ ID NO 14; 60pp; English.

XX The present invention provides peptides and compositions containing such
XX peptides that are useful as agents to maintain healthy skin and to
XX promote the condition of the skin. The invention is useful for increasing
XX the amount of fibronectin in tissue. The invention is also useful for
XX encouraging the maintenance and development of healthy skin, preventing
XX and treating wrinkles and for treating wounds. The invention acts as
XX vulnery and dermatological agents. The present sequence is human matrix
XX metalloproteinase-2 (MMP2) protein. This sequence is used in the
XX exemplification of the invention.

XX
SQ Sequence 660 AA;

Query Match 100.0%; Score 60; DB 8; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.068;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118
|||||

RESULT 50
ADV90301
ID ADV90301 standard; protein; 660 AA.
XX
AC ADV90301;
XX
XX 10-MAR-2005 (first entry)
XX
XX Protease-hydrolysed polypeptide #78.
XX
XX Protease; immune disorder; inflammation; musculoskeletal disease;
KW dermatological disease; gastrointestinal disease; endocrine disease;
KW metabolic disorder; cancer; hematological disease;
KW cardiovascular disease; neurological disease; neurodegenerative disease;
KW growth disorder; respiratory disease; genitourinary disease;
KW gynecological disorder; nutritional disorder; infection; cytostatic;
KW gastrointestinal-gen.; antiinflammatory; antiasthmatic; analgesic;
KW antiarthritic; osteopathic; antidiabetic; nephrotropic;
KW cardiovascular-gen.; immunosuppressive; respiratory-gen.; antipsoriatic;
KW antiallergic; dermatological; enzyme; hydrolysis.
XX
XX Homo sapiens.
OS
XX
XX WO2004113522-A1.
PN
XX
XX 29-DEC-2004.
PD
XX
XX 18-JUN-2004; 2004WO-BP051173.
PF
XX
XX 18-JUN-2003; 2003EP-00013819.
PR
XX 11-NOV-2003; 2003EP-00025851.
PR
XX 11-NOV-2003; 2003EP-00025871.
PR
XX 11-FEB-2004; 2004EP-00003058.
XX
XX (DIRE-) DIREVO BIOTECH AG.
PA
XX
XX Haupts U, Koltermann A, Scheidig A, Voetsmeier C, Kettling U;
PI WPI; 2005-057985/06.
XX
XX Proteases with defined specificity for a target substrate useful for
XX treating a specific disease related to the target substrate, such as
XX cancer, asthma, diabetes, inflammatory disorders and psoriasis.
XX
XX Claim 43; SEQ ID NO 131; 250pp; English.

XX The invention relates to the use of a protease with defined specificity
XX for a target substrate for preparing a medicament for the treatment of a
XX specific disease related to the target substrate. The invention also
XX relates to a pharmaceutical or diagnostic composition comprising one or
XX more enzymes in the use cited, optionally comprising pharmaceutically or
XX diagnostically acceptable carriers, excipients and/or auxiliary agents, a
XX method for cleaving a target substrate in vivo or in vitro comprising
XX contacting the target substrate with a protease as cited in the use
XX mentioned, and a method for treatment of a disease in a patient connected
XX with a specific target substrate comprising administering to the patient
XX a protease with defined specificity for the specific target substrate.
XX The protease hydrolyzes the target substrate and eliminates or reduces
XX one or more biological activities, physico-chemical properties or
XX pharmacological properties of the target protein and/or activates or
XX increases one or more biological activities, physico-chemical properties
XX or pharmacological properties of the target protein, and/or adds one or
XX more biological activities, physico-chemical properties or
XX pharmacological properties to the target protein. The protease may be
XX administered to treat immune disorders, inflammatory disorders,
XX musculoskeletal diseases, dermatological diseases, gastrointestinal
XX diseases, endocrine diseases, metabolic disorder, cancers, hematological
XX diseases, cardiovascular diseases, neurological diseases,

CC neurodegenerative diseases, growth disorders, respiratory diseases,
CC genitourinary diseases, gynecological disorders, nutritional disorders
CC and infections. This sequence represents a polypeptide hydrolysed by a
CC protease used in the scope of the invention.

SQ Sequence 660 AA;

Query Match 100.0%; Score 60; DB 9; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.068;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRPK 10
Db 109 NYNFFPRPK 118

RESULT 51
ADV68478
ID ADV68478 standard; protein; 660 AA.

XX AC ADV68478;
XX DT 10-MAR-2005 (first entry)

XX DE Human matrix metalloproteinase-2 protein SeqID14.

XX KW cell growth; pharmaceutical; cytostatic; metalloprotease 1 inhibitor;
XX KW metalloprotease 2 inhibitor; metalloprotease 3 inhibitor;
XX KW metalloprotease 4 inhibitor; metalloprotease 5 inhibitor;
XX KW metalloprotease 6 inhibitor; metalloprotease 7 inhibitor;
XX KW metalloprotease 8 inhibitor; metalloprotease 9 inhibitor;
XX KW metalloprotease 10 inhibitor; metalloprotease 11 inhibitor;
XX KW metalloprotease 12 inhibitor; metalloprotease 13 inhibitor;
XX KW metalloprotease inhibitor; bone tumor; sarcoma.

XX OS Homo sapiens.

XX PN US2004259802-A1.

XX PD 23-DEC-2004.

XX PF 20-JUN-2003; 2003US-00601059.

XX PR 20-JUN-2003; 2003US-00601059.

XX PA (YANG/) YANG S.

XX PA (QUIR/) QUIRK S.

XX PI Yang S, Quirk S;

XX PS WPI; 2005-047374/05.

XX CC A composition for decreasing and inhibiting the growth of chondrosarcoma
XX PT cells, useful for treating chondrosarcomas and bone cancer, comprises a
XX PT matrix metalloproteinase inhibitor.

XX PS Example 1; SEQ ID NO 14; 50pp; English.

XX CC This invention relates to a novel composition for inhibiting growth of
XX CC chondrosarcoma cells comprising an amount of a peptide and a
XX CC pharmaceutical carrier. The invention may be useful for the production of
XX CC compounds with a cytostatic activity acting as metalloprotease 1
XX CC inhibitors, metalloprotease 2 inhibitors, metalloprotease 3 inhibitors,
XX CC metalloprotease 4 inhibitors, metalloprotease 5 inhibitors,
XX CC metalloprotease 6 inhibitors, metalloprotease 7 inhibitors,
XX CC metalloprotease 8 inhibitors, metalloprotease 9 inhibitors,
XX CC metalloprotease 10 inhibitors, metalloprotease 11 inhibitors,
XX CC metalloprotease 12 inhibitors, metalloprotease 13 inhibitors or
XX CC metalloprotease inhibitors. The composition is useful for decreasing and
XX CC inhibiting the growth of chondrosarcoma cells which in turn inhibits
XX CC growth of a bone tumor or diminishes a size of a bone tumor, useful for
XX CC treating chondrosarcomas and bone cancers. The present sequence is that
XX CC of a human matrix metalloproteinase which may be used during the

CC development of a composition of the invention.

XX SQ Sequence 660 AA;

Query Match 100.0%; Score 60; DB 9; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.068;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRPK 10
Db 109 NYNFFPRPK 118

RESULT 52
ADE62857
ID ADE62857 standard; protein; 662 AA.

XX AC ADE62857;

XX DT 29-JAN-2004 (first entry)

XX DE Rat Protein P33436, SEQ ID NO 8791.

XX KW Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury;
XX KW chronic constriction injury; CCI; spared nerve injury; SNI; Chung.

XX OS Rattus norvegicus.

XX PN W02003016475-A2.

XX PD 27-FEB-2003.

XX PF 14-AUG-2002; 2002WO-US025765.

XX PR 14-AUG-2001; 2001US-0312147P.

XX PR 01-NOV-2001; 2001US-0346382P.

XX PR 26-NOV-2001; 2001US-0333347P.

XX PA (GEHO) GEN HOSPITAL CORP.

XX PA (FARB) BAYER AG.

XX PI Woolf C, D'urso D, Befort K, Costigan M;

XX DR WPI; 2003-268312/26.

XX DR GENBANK; P33436.

XX PT New composition comprising two or more isolated polypeptides, useful for
XX PT preparing a medicament for treating pain in an animal.

XX PS Claim 1; Page; 1017pp; English.

XX CC The invention discloses a composition comprising two or more isolated rat
XX CC or human polynucleotides or a polynucleotide which represents a fragment,
XX CC derivative or allelic variation of the nucleic acid sequence. Also
XX CC claimed are a vector comprising the novel polynucleotide, a host cell
XX CC comprising the vector, a method for identifying a nucleotide sequence
XX CC which is differentially regulated in an animal subjected to pain and a
XX CC kit to perform the method, an array, a method for identifying an agent
XX CC that increases or decreases the expression of the polynucleotide sequence
XX CC that is differentially expressed in neuronal tissue of a first animal
XX CC subjected to pain, a method for identifying a compound which regulates
XX CC the expression of a polynucleotide sequence which is differentially
XX CC expressed in an animal subjected to pain, a method for identifying a
XX CC compound that regulates the activity of one or more of the
XX CC polynucleotides, a method for producing a pharmaceutical composition, a
XX CC method for identifying a compound or small molecule that regulates the
XX CC activity in an animal of one or more of the polypeptides given in the
XX CC specification, a method for identifying a compound useful in treating
XX CC pain and a pharmaceutical composition comprising the one or more
XX CC polypeptides or their antibodies. The polynucleotide or the compound that
XX CC modulates its activity is useful for preparing a medicament for treating
XX CC pain (e.g. spinal segmental nerve injury (Chung), chronic constriction
XX CC injury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene

CC angiogenesis in inflamed tissue (for treatment of arthritis or
 CC rheumatoid arthritis), in solid tumours or metastases (particularly to
 CC induce regression or inhibit tumour growth), and in ocular disorders such
 CC as diabetic retinopathy and macular degeneration, as well as to treat
 CC restenosis (all claimed)

SQ Sequence 663 AA;
 Query Match 100.0%; Score 60; DB 2; Length 663;
 Best Local Similarity 100.0%; Pred. No. 0.069;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
 |||||
 Db 106 NYNFFPRKPK 115

RESULT 55
 AAW41227
 ID AAW41227 standard; protein; 663 AA.

AC AAW41227;

XX 09-JUN-1998 (first entry)

XX Chicken matrix metalloprotease-2 (MMP-2) protein sequence.

XX Matrix metalloprotease-2; MMP-2; alpha-v-beta-5 antagonist; treatment;
 KW vitronectin receptor; inhibition; angiogenesis; integrin; tumour growth;
 KW restenosis; neovascularisation.

XX Gallus sp.

XX WQ9745447-A1.

XX 04-DEC-1997.

XX 30-MAY-1997; 97WO-US009099.

XX 31-MAY-1996; 96US-0015869P.

XX 31-MAY-1996; 96US-0018733P.

XX (SCRI) SCRIPPS RES INST.

XX Brooks P, Cheresch DA, Friedlander M;

XX WPI; 1998-041758/04.

XX Packaging material containing polypeptide antagonist of alphav, beta5
 PT integrin - used for inhibition of angiogenesis, and for treating tumours,
 PT inflammation, eye diseases etc.

XX Disclosure; Fig 15A-B; 117pp; English.

XX The present sequence represents the chicken matrix metalloprotease-2 (MMP
 CC -2) protein sequence. Fragments of this protein (AAW41234-39) are able to
 CC act as alpha-v-beta-5 antagonists. Alpha-v-beta-5 is a vitronectin
 CC receptor. Inhibitors of alpha-v-beta-5 can inhibit angiogenesis. The
 CC specification describes a novel labelled package that contains an
 CC inhibitor of angiogenesis i.e. an alpha-v-beta-5 antagonising polypeptide
 CC that binds to integrin alpha-v-beta-5 and includes a part of the C-
 CC terminal domain of MMP. The antagonists are used to inhibit angiogenesis
 CC in inflamed tissue, in solid tumours or metastases, and in a wide range
 CC of ocular disorders (e.g. diabetic or other forms of retinopathy,
 CC neovascular glaucoma, or corneal transplants). They are particularly used
 CC to induce regression or to inhibit growth of tumours. The alpha-v-beta-5
 CC antagonists can also be used to treat restenosis caused by migration of
 CC smooth muscle cells following angioplasty and to reduce blood supply to
 CC selected tissues. The antagonists particularly inhibit neovascularisation
 CC where this is induced by cytokines, e.g. transforming growth factor
 CC alpha, epidermal growth factor or especially vascular endothelial growth
 CC factor

SQ Sequence 663 AA;

Query Match 100.0%; Score 60; DB 2; Length 663;
 Best Local Similarity 100.0%; Pred. No. 0.069;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
 |||||
 Db 106 NYNFFPRKPK 115

RESULT 56
 ADT05976
 ID ADT05976 standard; protein; 663 AA.

XX ADT05976;

XX 30-DEC-2004 (first entry)

XX Chicken matrix metalloprotease (MMP-2) version #1, SEQ ID NO:30.

XX Angiogenesis inhibitor; integrin alpha-v beta-3 antagonist;
 KW vitronectin receptor antagonist; neovascularisation; cancer; tumour;
 KW inflammation; rheumatoid arthritis; retina; diabetic retinopathy;
 KW restenosis; smooth muscle cell migration; angioplasty; antiangiogenic;
 KW cytotatic; antiinflammatory; antiarthritic; antiarheumatic;
 KW ophthalmological; antidiabetic; vasotropic; muscular-gen;
 KW peptidomimetic; matrix metalloprotease 2; MMP-2; progelatinase; chicken;
 KW enzyme.

XX Gallus gallus.

XX Synthetic.

XX Key Location/Qualifiers
 FT Peptide 1..26
 FT /label= Signal_peptide

FT Protein 27..663

FT /label= Mature_MMP-2

FT Misc-difference 202..205

FT /note= "This section is Asp-Ser-His-Phe in the chicken
 MMP-2 shown in figure 7"

FT Region 436..663

FT /note= "Corresponds to residues 410-637 of the mature
 protein (see SEQ ID NO:23)"

FT Domain 471..663

FT /label = Hemopexin_domain

FT /note = Corresponds to residues 445-637 of the mature
 protein (see also SEQ ID NO:24)

FT Region 471..578

FT /note= "Corresponds to residues 445-552 of the mature
 protein (see SEQ ID NO:26)"

FT Region 471..544

FT /note= "Corresponds to residues 445-518 of the mature
 protein (see SEQ ID NO:25)"

FT Region 542..663

FT /note= "Corresponds to residues 516-637 of the mature
 protein (see SEQ ID NO:27)"

FT Region 575..663

FT /note= "Corresponds to residues 549-637 of the mature
 protein (see SEQ ID NO:28)"

XX WO2004087057-A2.

XX 14-OCT-2004.

XX 26-MAR-2004; 2004WO-US009321.

XX 28-MAR-2003; 2003US-00402212.

XX (SCRI) SCRIPPS RES INST.

XX Brooks PC, Cheresch DA;

XX PI

```

DR WPI: 2004-737508/72.
DR N-PSDB; ADT05995.
XX
XX Administration of composition comprising organic peptidomimetic alpha-v
PT beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue
PT angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
XX
XX Example 2; SEQ ID NO 30; 184pp; English.
XX
CC The invention relates to a method of inhibiting angiogenesis in a tissue
CC by the administration of a composition comprising an organic
CC peptidomimetic antagonist of integrin alpha-V beta-3 (vitronectin
CC receptor). The integrin alpha-V beta-3 antagonist and compositions
CC containing it are useful for inhibiting angiogenesis in a variety of
CC medical conditions. The antagonist may be used to induce the regression
CC of solid tumours or solid tumour metastases; to inhibit the growth of
CC solid tumours undergoing neovascularisation; to treat inflamed tissue in
CC which neovascularisation is occurring (e.g., in rheumatoid arthritis); to
CC treat neovascularisation in retinal tissue (e.g., in diabetic
CC retinopathy); to treat restenosis in a tissue by inhibiting smooth muscle
CC cell migration (such as that which occurs following angioplasty); and to
CC reduce the blood supply to a tissue required to support new growth of the
CC tissue. The present sequence represents chicken matrix metalloprotease 2
CC (MMP-2, gelatinase) used in an example of the invention. Note: The
CC present sequence differs between residues 202-205 compared to the
CC sequence also described as chicken MMP-2 shown in figure 7A-7C
CC (ADT05995).
XX
XX Sequence 663 AA;
SQ
Query Match 100.0%; Score 60; DB 8; Length 663;
Best Local Similarity 100.0%; Pred. No. 0.069;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 106 NYNFFPRKPK 115

RESULT 57
ADT05995
ID ADT05995 standard; protein; 663 AA.
XX
XX ADT05995;
XX
XX 30-DEC-2004 (first entry)
XX
XX Chicken matrix metalloprotease (MMP-2) version #2.
XX
XX Angiogenesis inhibitor; integrin alpha-V beta-3 antagonist;
KW vitronectin receptor antagonist; neovascularisation; cancer; tumour;
KW inflammation; rheumatoid arthritis; retina; diabetic retinopathy;
KW restenosis; smooth muscle cell migration; angioplasty; antiangiogenic;
KW cyostatic; antiinflammatory; antiarthritic; antirheumatic;
KW ophthalmological; antidiabetic; vasotropic; muscular-gen.;
KW peptidomimetic; matrix metalloprotease 2; MMP-2; progelatinase; chicken;
KW enzyme.
XX
XX Gallus gallus.
XX
XX Key Location/Qualifiers
FH Peptide 1..26
FT /label= Signal_peptide
FT Protein 27..663
FT /label= Mature_MMP-2
FT Misc-difference 202..205
FT /note= "This section is Ser-His-Phe-Asp in the chicken
FT MMP-2 shown in SEQ ID NO:30"
FT Misc-difference 202
FT /note= "Encoded by TCC"
FT Misc-difference 203
FT /note= "Encoded by CAT"
FT Misc-difference 204
FT /note= "Encoded by TTT"
FT Misc-difference 205
FT /note= "Encoded by GAT"
FT Region 436..663
FT /note= "Corresponds to residues 410-637 of the mature
FT protein (see SEQ ID NO:23)"
FT Domain 471..663
FT /label= Hemopexin domain
FT /note= "Corresponds to residues 445-637 of the mature
FT protein (see also SEQ ID NO:24)"
FT Region 471..578
FT /note= "Corresponds to residues 445-552 of the mature
FT protein (see SEQ ID NO:26)"
FT Region 471..544
FT /note= "Corresponds to residues 445-518 of the mature
FT protein (see SEQ ID NO:25)"
FT Region 542..663
FT /note= "Corresponds to residues 516-637 of the mature
FT protein (see SEQ ID NO:27)"
FT Region 575..663
FT /note= "Corresponds to residues 549-637 of the mature
FT protein (see SEQ ID NO:28)"
XX
XX WO2004087057-A2.
XX
XX 14-OCT-2004.
XX
XX 26-MAR-2004; 2004WO-US009321.
XX
XX 28-MAR-2003; 2003US-00402212.
XX
XX (SCRI ) SCRIPPS RES INST.
XX
XX Brooks PC, Cheresch DA;
XX
XX WPI: 2004-737508/72.
XX N-PSDB; ADT05994.
XX
XX Administration of composition comprising organic peptidomimetic alpha-v
PT beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue
PT angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
XX
XX Example 2; Fig 7A-C; 184pp; English.
XX
XX The invention relates to a method of inhibiting angiogenesis in a tissue
XX by the administration of a composition comprising an organic
XX peptidomimetic antagonist of integrin alpha-V beta-3 (vitronectin
XX receptor). The integrin alpha-V beta-3 antagonist and compositions
XX containing it are useful for inhibiting angiogenesis in a variety of
XX medical conditions. The antagonist may be used to induce the regression
XX of solid tumours or solid tumour metastases; to inhibit the growth of
XX solid tumours undergoing neovascularisation; to treat inflamed tissue in
XX which neovascularisation is occurring (e.g., in rheumatoid arthritis); to
XX treat neovascularisation in retinal tissue (e.g., in diabetic
XX retinopathy); to treat restenosis in a tissue by inhibiting smooth muscle
XX cell migration (such as that which occurs following angioplasty); and to
XX reduce the blood supply to a tissue required to support new growth of the
XX tissue. The present sequence represents chicken matrix metalloprotease 2
XX (MMP-2, gelatinase) used in an example of the invention. Note: The
XX present sequence differs between residues 202-205 compared to the
XX sequence also described as chicken MMP-2 shown in the sequence listing
XX (ADT05996)
XX
XX Sequence 663 AA;
SQ
Query Match 100.0%; Score 60; DB 8; Length 663;
Best Local Similarity 100.0%; Pred. No. 0.069;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 106 NYNFFPRKPK 115

Query Match 100.0%; Score 60; DB 8; Length 663;
Best Local Similarity 100.0%; Pred. No. 0.069;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 106 NYNFFPRKPK 115

```

```
RESULT 58
ADPF60554
ID ADF60554 standard; protein; 708 AA.
AC ADF60554;
XX
DT 12-FEB-2004 (first entry)
XX
DE Human contig polypeptide sequence SEQ ID NO:2921.
XX
KW biological activity; genetic engineering; hybridisation probe; oligomer;
KW primer; chromosome mapping; gene mapping; recombinant protein production;
KW human.
XX
OS Homo sapiens.
XX
PN WO2003080795-A2.
XX
PD 02-OCT-2003.
XX
PF 09-AUG-2002; 2002WO-US025485.
XX
PR 09-AUG-2001; 2001US-0311261P.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Tang YT, Yang Y, Wang Z, Weng G, Ma Y;
XX
DR WPI; 2003-876918/81.
XX
DR N-PSDB; ADF60102.
XX
XX
XX New polynucleotides, useful as hybridization probes, oligomers or
PT primers, for chromosome or gene mapping, for the recombinant production
PT of proteins, and for generating antisense DNA or RNA.
XX
XX Example 3; SEQ ID NO 2921; 571pp; English.
XX
XX The present invention describes isolated polynucleotide sequences (I),
CC which encode polypeptides (II) with biological activity. Also described:
CC (1) a vector comprising (I); (2) an expression vector comprising (I); (3)
CC a host cell genetically engineered to comprise (I) which is operatively
CC associated with a regulatory sequence that modulates expression of (I) in
CC the host cell; (4) a polypeptide (II) encoded by (I); (5) a composition
CC comprising the polypeptide of (4) and a carrier; (6) an antibody directed
CC against the polypeptide of (4); (7) detecting (I) or the polypeptide of
CC (4) in a sample; (8) identifying a compound that binds to the polypeptide
CC of (4); (9) producing the polypeptide of (4); and (10) a collection of
CC polynucleotides comprising at least one of the polynucleotide sequences
CC (I). The polynucleotides (I) can be used as hybridisation probes.
CC oligomers or primers, for chromosome or gene mapping, for the recombinant
CC production of proteins, and for generating antisense DNA or RNA. The
CC present sequence represents a human contig polypeptide sequence, which is
CC used in an example from the present invention.
XX
SQ Sequence 708 AA;

Query Match 100.0%; Score 60; DB 7; Length 708;
Best Local Similarity 100.0%; Pred. No. 0.073;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 157 NYNFFPRKPK 166
|||||

RESULT 59
AEA20970
ID AEA20970 standard; protein; 708 AA.
XX
AC AEA20970;
XX
DT 11-AUG-2005 (first entry)
XX
```

```
XX
DE Novel human polypeptide SEQ ID NO 1664.
XX
KW vulnery; CNS-gen.; gene therapy; diagnostic; forensic; mapping;
KW DNA purification; protein purification; osteoarthritis; antiarthritic;
KW osteopathic; musculoskeletal disease; osteoporosis; endocrine disease;
KW periodontal disease; antiinflammatory; mouth disease; burns; injury;
KW peripheral neuropathy; Alzheimer's disease; neuroprotective; nootropic;
KW degeneration; parkinson's disease; antiparkinsonian; neurological disease;
KW cerebrovascular ischemia; cerebroprotective; vasotropic;
KW cardiovascular disease; autoimmune disease; immunosuppressive;
KW immune disorder; viral infection; virucide; infection; cancer;
KW cytostatic; neoplasm.
XX
OS Homo sapiens.
XX
PN WO2005049806-A2.
XX
PD 02-JUN-2005.
XX
PF 11-MAR-2004; 2004WO-US007412.
XX
PR 14-MAR-2003; 2003US-00389559.
XX
PA (NUVE-) NUVELO INC.
XX
PI Tang TY, Wang J, Wang ZW, Zhang J, Ren F, Zhou P, Ma Y;
PI Ghosh M, Xue A, Asundi V, Zhao Q, Wang D, Goodrich R, Chen R;
PI Wehrman T, Weng G, Boyle B;
XX
DR WPI; 2005-417730/42.
XX
XX New polynucleotide encoding a polypeptide with biological activity,
PT useful for treating a disease or disorder, e.g. osteoarthritis, burns,
PT CNS and peripheral disease, stroke, autoimmune disorders, viral
PT infection, or cancer.
XX
XX Example 3; SEQ ID NO 1664; 500pp; English.
XX
XX The invention describes a new isolated polynucleotide (I) encoding a
CC polypeptide with biological activity comprising: a nucleotide sequence of
CC SEQ ID NOS: 1-567 (fully defined); a nucleotide sequence that hybridizes
CC to the sequence of (I) under stringent hybridization conditions; or a
CC nucleotide sequence having greater than 9% sequence identity with the
CC sequence of (I). Also described are: a(n) (expression) vector comprising
CC (I); a host cell genetically engineered to comprise (I) operatively,
CC associated with a regulatory sequence that modulates expression of the
CC polynucleotide in the host cell; an isolated polypeptide comprising a
CC sequence of SEQ ID NOS: 568-1134 (fully defined), where the polypeptide
CC is: a polypeptide encoded by (I); or a polypeptide encoded by a
CC polynucleotide hybridizing under stringent conditions with any one of SEQ
CC ID NOS: 1-567; a composition comprising the polypeptide of (3) and a
CC carrier; an antibody directed against the polypeptide of (3); a method
CC for detecting (I) in a sample; a method for detecting the polypeptide of
CC (3) in a sample; a method for identifying a compound that binds to the
CC polypeptide of (3); a method of producing the polypeptide of (3); and a
CC collection of polynucleotides, where the collection comprising of at
CC least one of SEQ ID NOS: 1-567. (I) is a polynucleotide comprising any of
CC the sequences of SEQ ID NOS: 1-567 encoding a polypeptide with biological
CC activity, which comprises any of the amino acid sequence of SEQ ID NOS:
CC 568-1134. All sequences are fully defined in the specification. The
CC sequences and methods are useful in diagnostics, forensic, and gene
CC mapping, in identifying of mutations responsible for genetic disorders or
CC other traits, in assessing biodiversity, and for producing many other
CC types of data and products dependent on DNA and amino acid sequences. The
CC composition and method are useful for treating a disease or disorder,
CC e.g. osteoporosis, osteoarthritis, periodontal disease, burns, CNS and
CC peripheral disease, Alzheimer's disease, Parkinson's disease, stroke, and
CC autoimmune disorders, viral infection, or cancer. This is the amino acid
CC sequence of a novel polypeptide of the invention.
XX
SQ Sequence 708 AA;
```

Query Match 100.0%; Score 60; DB 9; Length 708;
Best Local Similarity 100.0%; Pred. No. 0.073;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 NYNFFPRKPK 10
| | | | | | | | | |
Db 157 NYNFFPRKPK 166
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 NYNFFPRKPK 10
| | | | | | | | | |
Db 327 NYNFFPRKPK 336
Search completed: February 21, 2006, 18:13:22
Job time : 102.386 secs

RESULT 60
ABG23999
ID ABG23999 standard; protein; 1330 AA.
XX
AC ABG23999;
XX
DT 18-FEB-2002 (first entry)
XX
DE Novel human diagnostic protein #23990.
XX
KW Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW food supplement; medical imaging; diagnostic; genetic disorder.
XX
OS Homo sapiens.
XX
PN WO200175067-A2.
XX
PD 11-OCT-2001.
XX
PF 30-MAR-2001; 2001WO-US008631.
XX
PR 31-MAR-2000; 2000US-00540217.
PR 23-AUG-2000; 2000US-00649167.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Drmanac RT, Liu C, Tang YT;
XX
DR WPI; 2001-639362/73.
DR N-PSDB; AAS88186.
XX
XX New isolated polynucleotide and encoded polypeptides, useful in
PT diagnostics, forensics, gene mapping, identification of mutations
PT responsible for genetic disorders or other traits and to assess
PT biodiversity.
XX
PS Claim 20; SEQ ID NO 54358; 103pp; English.
XX
CC The invention relates to isolated polynucleotide (I) and polypeptide (II)
CC sequences. (I) is useful as hybridisation probes, polymerase chain
CC reaction (PCR) primers, oligomers, and for chromosome and gene mapping,
CC and in recombinant production of (II). The polynucleotides are also used
CC in diagnostics as expressed sequence tags for identifying expressed
CC genes. (I) is useful in gene therapy techniques to restore normal
CC activity of (II) or to treat disease states involving (II). (II) is
CC useful for generating antibodies against it, detecting or quantitating a
CC polypeptide in tissue, as molecular weight markers and as a food
CC supplement. (II) and its binding partners are useful in medical imaging
CC of sites expressing (II). (I) and (II) are useful for treating disorders
CC involving aberrant protein expression or biological activity. The
CC polypeptide and polynucleotide sequences have applications in
CC diagnostics, forensics, gene mapping, identification of mutations
CC responsible for genetic disorders or other traits to assess biodiversity
CC and to produce other types of data and products dependent on DNA and
CC amino acid sequences. ABG0010-ABG30377 represent novel human diagnostic
CC amino acid sequences of the invention. Note: The sequence data for this
CC patent did not appear in the printed specification, but was obtained in
CC electronic format directly from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 1330 AA;

Query Match 100.0%; Score 60; DB 4; Length 1330;
Best Local Similarity 100.0%; Pred. No. 0.14;

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OM protein - protein search, using sw model

Run on: February 21, 2006, 08:00:29 ; Search time 22.8947 Seconds
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Title: US-10-601-059-13

Perfect score: 60

Sequence: 1 NYNFFPRKPK 10

Scoring table: BLOSUM62

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Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

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- 3: /cgn2_6/ptodata/1/iaa/H COMB.pap.*
- 4: /cgn2_6/ptodata/1/iaa/PCITUS COMB.pap.*
- 5: /cgn2_6/ptodata/1/iaa/RE COMB.pap.*
- 6: /cgn2_6/ptodata/1/iaa/backfiles1.pap.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Length	DB ID	Description
1	60	100.0	10	US-10-153-185-13
2	60	100.0	19	US-10-153-185-11
3	60	100.0	43	US-10-153-185-15
4	60	100.0	44	US-10-153-185-2
5	60	100.0	631	US-08-448-489-17
6	60	100.0	631	US-08-689-730-17
7	60	100.0	660	US-08-704-711A-18
8	60	100.0	660	US-09-521-220-18
9	60	100.0	660	US-09-391-104-19
10	60	100.0	660	US-09-317-254-89
11	60	100.0	660	US-09-949-016-6512
12	60	100.0	660	US-09-949-016-7937
13	60	100.0	660	US-10-153-185-14
14	60	100.0	663	US-09-194-468A-30
15	55	91.7	30	US-08-303-270-6
16	55	91.7	171	US-08-303-270-1
17	54	90.0	168	US-08-444-628-9
18	54	90.0	168	US-08-357-820-9
19	45	75.0	136	US-09-513-999C-4639
20	39	65.0	473	US-09-949-016-9481
21	39	65.0	518	US-09-538-092-579
22	38	63.3	438	US-07-923-095-2
23	38	63.3	438	US-08-229-511-2
24	38	63.3	438	US-08-314-979-2
25	38	63.3	438	US-08-436-716-2
26	38	63.3	456	US-09-949-016-10421
27	38	63.3	572	US-09-328-352-4176

28	37	61.7	105	2	US-09-248-796A-17001	Sequence 17001, A
29	37	61.7	198	2	US-09-710-279-1572	Sequence 1572, Ap
30	37	61.7	248	2	US-09-134-001C-3731	Sequence 3731, Ap
31	37	61.7	249	2	US-09-701-868-13	Sequence 13, Appl
32	37	61.7	307	2	US-09-252-991A-26413	Sequence 26413, A
33	37	61.7	503	2	US-09-323-998E-61	Sequence 61, Appl
34	37	61.7	576	2	US-10-197-220-73	Sequence 73, Appl
35	37	61.7	590	2	US-09-198-452A-82	Sequence 82, Appl
36	37	61.7	590	2	US-09-438-185A-67	Sequence 67, Appl
37	36	60.0	312	2	US-09-543-681A-6183	Sequence 6183, Ap
38	36	60.0	335	1	US-08-379-556A-10	Sequence 10, Appl
39	36	60.0	343	2	US-09-454-034-8	Sequence 8, Appli
40	36	60.0	357	2	US-09-489-039A-10505	Sequence 10505, A
41	36	60.0	536	2	US-09-270-767-34532	Sequence 34532, A
42	36	60.0	536	2	US-09-270-767-49749	Sequence 49749, A
43	36	60.0	669	2	US-09-252-991A-31488	Sequence 31488, A
44	36	60.0	745	2	US-09-270-767-45481	Sequence 45481, A
45	36	60.0	1360	2	US-09-788-657-22	Sequence 22, Appl

ALIGNMENTS

RESULT 1
US-10-153-185-13
; Sequence 13, Application US/10153185
; Patent No. 6906036
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; PRIOR FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 13
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-13

Query Match	100.0%	Score 60;	DB 2;	Length 10;
Best Local Similarity	100.0%	Pred. No. 0.00035;		
Matches 10;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;
Qy	1	NYNFFPRKPK 10		
Db	1	NYNFFPRKPK 10		

RESULT 2
US-10-153-185-11
; Sequence 11, Application US/10153185
; Patent No. 6906036
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; PRIOR FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 11

; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-11

Query Match 100.0%; Score 60; DB 2; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.00067;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 10 NYNFFPRKPK 19
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RESULT 3

US-10-153-185-15
; Sequence 15, Application US/10153185
; Patent No. 6906036

; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; PRIOR FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-15

Query Match 100.0%; Score 60; DB 2; Length 43;
Best Local Similarity 100.0%; Pred. No. 0.0015;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 33 NYNFFPRKPK 42
|||||

RESULT 4

US-10-153-185-2
; Sequence 2, Application US/10153185
; Patent No. 6906036

; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; PRIOR FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-2

Query Match 100.0%; Score 60; DB 2; Length 44;
Best Local Similarity 100.0%; Pred. No. 0.0015;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 33 NYNFFPRKPK 42
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RESULT 5

US-08-448-489-17
; Sequence 17, Application US/08448489
; Patent No. 6184022

; GENERAL INFORMATION:
; APPLICANT: SEIKI, Motoharu
; APPLICANT: SATO, Hiroshi
; APPLICANT: SHINAGAWA, Akira
; TITLE OF INVENTION: NOVEL METALLOPROTEINASE AND ENCODING DNA THEREFOR
; FILE REFERENCE: 55-290P
; CURRENT APPLICATION NUMBER: US/08/448,489
; CURRENT FILING DATE: 1995-06-07
; NUMBER OF SEQ ID NOS: 19
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 17
; LENGTH: 631
; TYPE: PRT
; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: Description of Unknown Organism: Known Member of
; OTHER INFORMATION: Matrix Metalloproteinase Family
US-08-448-489-17

Query Match 100.0%; Score 60; DB 2; Length 631;
Best Local Similarity 100.0%; Pred. No. 0.022;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 80 NYNFFPRKPK 89
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RESULT 6

US-09-689-730-17
; Sequence 17, Application US/09689730
; Patent No. 6825024

; GENERAL INFORMATION:
; APPLICANT: SEIKI, Motoharu
; APPLICANT: SATO, Hiroshi
; APPLICANT: SHINAGAWA, Akira
; TITLE OF INVENTION: NOVEL METALLOPROTEINASE AND ENCODING DNA THEREFOR
; FILE REFERENCE: 55-290P
; CURRENT APPLICATION NUMBER: US/09/689,730
; CURRENT FILING DATE: 2000-10-13
; PRIOR APPLICATION NUMBER: US/08/448,489
; PRIOR FILING DATE: 1995-06-07
; NUMBER OF SEQ ID NOS: 19
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 17
; LENGTH: 631
; TYPE: PRT
; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: Description of Unknown Organism: Known Member of
; OTHER INFORMATION: Matrix Metalloproteinase Family
US-09-689-730-17

Query Match 100.0%; Score 60; DB 2; Length 631;
Best Local Similarity 100.0%; Pred. No. 0.022;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 80 NYNFFPRKPK 89
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RESULT 7

US-08-704-711A-18

; Sequence 18, Application US/08704711A
; Patent No. 6114159
; GENERAL INFORMATION:
; APPLICANT: WILL, Horst
; APPLICANT: HINZMANN, Bernd
; TITLE OF INVENTION: DNA SEQUENCES FOR MATRIX
; TITLE OF INVENTION: METALLOPROTEASES, THEIR PRODUCTION AND USE
; NUMBER OF SEQUENCES: 22
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Foley & Lardner
; STREET: 3000 K Street, N.W., Suite 500
; CITY: Washington
; STATE: D.C.
; COUNTRY: USA
; ZIP: 20007-5109
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/704,711A
; FILING DATE: 20-NOV-1996
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: WO PCT/DE95/00357
; FILING DATE: 17-MAR-1995
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: DE 4438838.1
; FILING DATE: 21-OCT-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: DE 4409663.1
; FILING DATE: 17-MAR-1994
; ATTORNEY/AGENT INFORMATION:
; NAME: GRANADOS, Patricia D.
; REGISTRATION NUMBER: 33,683
; REFERENCE/DOCKET NUMBER: 26083/124
; TELEPHONE: (202)672-5300
; TELEFAX: (202)672-5399
; TELEX: 904136
; INFORMATION FOR SEQ ID NO: 18:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 660 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; US-08-704-711A-18

Query Match 100.0%; Score 60; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.023;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118
|||||

RESULT 8
US-09-521-220-18
; Sequence 18, Application US/09521220
; Patent No. 6399348
; GENERAL INFORMATION:
; APPLICANT: WILL, Horst
; APPLICANT: HINZMANN, Bernd
; TITLE OF INVENTION: DNA SEQUENCES FOR MATRIX
; TITLE OF INVENTION: METALLOPROTEASES, THEIR PRODUCTION AND USE
; NUMBER OF SEQUENCES: 22
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Foley & Lardner
; STREET: 3000 K Street, N.W., Suite 500
; CITY: Washington
; STATE: D.C.

; COUNTRY: USA
; ZIP: 20007-5109
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/521,220
; FILING DATE: 08-Mar-2000
; CLASSIFICATION: <Unknown>
; 21-OCT-1994
; 17-MAR-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/704,711
; FILING DATE: <Unknown>
; APPLICATION NUMBER: DE 4438838.1
; FILING DATE: 21-OCT-1994
; APPLICATION NUMBER: DE 4409663.1
; FILING DATE: 17-MAR-1994
; ATTORNEY/AGENT INFORMATION:
; NAME: GRANADOS, Patricia D.
; REGISTRATION NUMBER: 33,683
; REFERENCE/DOCKET NUMBER: 26083/124
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202)672-5300
; TELEFAX: (202)672-5399
; TELEX: 904136
; INFORMATION FOR SEQ ID NO: 18:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 660 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; US-09-521-220-18

Query Match 100.0%; Score 60; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.023;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118
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RESULT 9
US-09-391-104-19
; Sequence 19, Application US/09391104
; Patent No. 6399371
; GENERAL INFORMATION:
; APPLICANT: Abbott Laboratories
; APPLICANT: Falduto, Michael T.
; APPLICANT: Magnuson, Scott R.
; APPLICANT: Morgan, Douglas W.
; TITLE OF INVENTION: HUMAN MATRIX METALLOPROTEASE GENE
; TITLE OF INVENTION: PROTEINS ENCODED THEREFROM AND METHODS
; FILE REFERENCE: 6073.US.P1
; CURRENT APPLICATION NUMBER: US/09/391,104
; CURRENT FILING DATE: 1999-09-07
; PRIOR APPLICATION NUMBER: US 08/814,394
; PRIOR FILING DATE: 1997-03-11
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 19
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-391-104-19

Query Match 100.0%; Score 60; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.023;

Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118

RESULT 10
US-09-917-254-89
; Sequence 89, Application US/09917254
; Patent No. 6703204
; GENERAL INFORMATION:
; APPLICANT: Mutter, George
; APPLICANT: Baak, Jan
; TITLE OF INVENTION: Prognostic Classification of Breast Cancer
; FILE REFERENCE: H0801/7224(JRV)
; CURRENT APPLICATION NUMBER: US/09/917,254
; CURRENT FILING DATE: 2001-07-27
; PRIOR APPLICATION NUMBER: US 60/222,093
; PRIOR FILING DATE: 2000-07-28
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 89
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo Sapiens
US-09-917-254-89

Query Match 100.0%; Score 60; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.023;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118

RESULT 11
US-09-949-016-6512
; Sequence 6512, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 6512
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Human
US-09-949-016-6512

Query Match 100.0%; Score 60; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.023;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118

RESULT 12
US-09-949-016-7937

; Sequence 7937, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 7937
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Human
US-09-949-016-7937

Query Match 100.0%; Score 60; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.023;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118

RESULT 13
US-10-153-185-14
; Sequence 14, Application US/10153185
; Patent No. 6906036
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; CURRENT FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-14

Query Match 100.0%; Score 60; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.023;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118

RESULT 14
US-09-194-468A-30
; Sequence 30, Application US/09194468A
; Patent No. 6500924
; GENERAL INFORMATION:
; APPLICANT: Brooks, Peter
; APPLICANT: Chetesh, David A.
; TITLE OF INVENTION: METHODS AND COMPOSITIONS USEFUL FOR INHIBITION OF
; ANGIOGENESIS

FILE REFERENCE: MER0049S
CURRENT APPLICATION NUMBER: US/09/194,468A
CURRENT FILING DATE: 1999-03-23
PRIOR APPLICATION NUMBER: 60/018,773
PRIOR FILING DATE: 1996-05-31
PRIOR APPLICATION NUMBER: 60/015,896
PRIOR FILING DATE: 1996-05-31
PRIOR APPLICATION NUMBER: PCT/US97/09158
PRIOR FILING DATE: 1997-05-30
NUMBER OF SEQ ID NOS: 45
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 30
LENGTH: 663
TYPE: PRT
ORGANISM: Gallus gallus
US-09-194-468A-30

Query Match 100.0%; Score 60; DB 2; Length 663;
Best Local Similarity 100.0%; Pred. No. 0.023;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 106 NYNFFPRKPK 115

RESULT 15

US-08-303-270-6
Sequence 6, Application US/08303270
Patent No. 5646027
GENERAL INFORMATION:
APPLICANT: Ye, Qi-Zhuang
APPLICANT: Johnson, Linda L.
APPLICANT: Hupe, Donald J.
TITLE OF INVENTION: Process for the Production of
TITLE OF INVENTION: Gelatinase Catalytic Domain Protein
NUMBER OF SEQUENCES: 10
CORRESPONDENCE ADDRESS:
ADDRESSEE: Warner-Lambert Company
STREET: 2800 Plymouth Rd.
CITY: Ann Arbor
STATE: MI
COUNTRY: US
ZIP: 48105
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/303,270
FILING DATE:
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Tinney, Francis J.
REGISTRATION NUMBER: 33,069
REFERENCE/DOCKET NUMBER: 5120-FJT
TELECOMMUNICATION INFORMATION:
TELEPHONE: 313 996-7295
TELEFAX: 313 996-1553
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 30 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-08-303-270-6

Query Match 91.7%; Score 55; DB 1; Length 30;
Best Local Similarity 90.0%; Pred. No. 0.0076;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

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Db 2 SYNFFPRKPK 11
Search completed: February 21, 2006, 08:02:41
Job time : 23.8947 secs

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GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: February 21, 2006, 18:13:46 ; Search time 76.8421 Seconds
(without alignments)
54.375 Million cell updates/sec

Title: US-10-601-059-13
Perfect score: 60
Sequence: 1 NYNFFPRKPK 10

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Searched: 1867569 seqs, 417829326 residues
Total number of hits satisfying chosen parameters: 55

Minimum DB seq length: 0
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Post-processing: Minimum Match 100%
Maximum Match 100%
Listing first 500 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	60	100.0	10	4	US-10-219-329-13
2	60	100.0	10	4	US-10-153-185-13
3	60	100.0	10	4	US-10-219-561-13
4	60	100.0	10	4	US-10-032-376A-13
5	60	100.0	10	4	US-10-335-207-13
6	60	100.0	10	5	US-10-601-059-13
7	60	100.0	10	6	US-10-219-329-11
8	60	100.0	19	4	US-10-031-488-11
9	60	100.0	19	4	US-10-153-185-11
10	60	100.0	19	4	US-10-219-561-11
11	60	100.0	19	4	US-10-032-376A-11
12	60	100.0	19	4	US-10-335-207-11
13	60	100.0	19	5	US-10-601-059-11
14	60	100.0	19	6	US-11-031-488-11
15	60	100.0	43	4	US-10-219-329-15
16	60	100.0	43	4	US-10-153-185-15
17	60	100.0	43	4	US-10-219-561-15
18	60	100.0	43	4	US-10-032-376A-15
19	60	100.0	43	4	US-10-335-207-15
20	60	100.0	43	5	US-10-601-059-15
21	60	100.0	43	6	US-11-031-488-15
22	60	100.0	44	4	US-10-219-329-2
23	60	100.0	44	4	US-10-153-185-2
24	60	100.0	44	4	US-10-219-561-2
25	60	100.0	44	4	US-10-032-376A-2
26	60	100.0	44	4	US-10-335-207-2
27	60	100.0	44	5	US-10-601-059-2

28	60	100.0	44	6	US-11-031-488-2	Sequence 2, Appli
29	60	100.0	75	3	US-09-864-761-37964	Sequence 37964, A
30	60	100.0	462	5	US-10-852-707-56	Sequence 56, Appl
31	60	100.0	468	5	US-10-450-763-54360	Sequence 54360, A
32	60	100.0	660	3	US-09-391-104-19	Sequence 19, Appl
33	60	100.0	660	3	US-09-801-196-35	Sequence 35, Appl
34	60	100.0	660	3	US-09-918-715-208	Sequence 208, App
35	60	100.0	660	4	US-10-219-329-14	Sequence 14, Appl
36	60	100.0	660	4	US-10-301-822-125	Sequence 125, App
37	60	100.0	660	4	US-10-153-185-14	Sequence 14, Appl
38	60	100.0	660	4	US-10-219-561-14	Sequence 14, Appl
39	60	100.0	660	4	US-10-131-985-25	Sequence 25, Appl
40	60	100.0	660	4	US-10-447-315-3	Sequence 3, Appli
41	60	100.0	660	4	US-10-032-376A-14	Sequence 14, Appl
42	60	100.0	660	4	US-10-335-207-14	Sequence 14, Appl
43	60	100.0	660	4	US-10-480-621-1	Sequence 1, Appli
44	60	100.0	660	4	US-10-474-794-208	Sequence 208, App
45	60	100.0	660	5	US-10-601-059-14	Sequence 14, Appl
46	60	100.0	660	5	US-10-872-198-131	Sequence 131, App
47	60	100.0	660	5	US-10-901-417-25	Sequence 25, Appl
48	60	100.0	660	5	US-10-979-159-208	Sequence 208, App
49	60	100.0	660	5	US-10-287-436A-489	Sequence 489, App
50	60	100.0	660	5	US-10-287-436A-1185	Sequence 1185, Ap
51	60	100.0	660	6	US-11-021-951-131	Sequence 131, App
52	60	100.0	660	6	US-11-031-488-14	Sequence 14, Appl
53	60	100.0	663	4	US-10-115-223-30	Sequence 30, Appl
54	60	100.0	663	4	US-10-402-212-30	Sequence 30, Appl
55	60	100.0	1330	5	US-10-450-763-54358	Sequence 54358, A

ALIGNMENTS

RESULT: 1
US-10-219-329-13
; Sequence 13, Application US/10219329
; Publication No. US20030096757A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Weart, Ilona f.
; TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds
; FILE REFERENCE: 1443.035WO1
; CURRENT FILING DATE: 2002-08-15
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 13
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-329-13

Query Match 100.0%; Score 60; DB 4; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.0037;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
| | | | |
DB 1 NYNFFPRKPK 10
| | | | |

RESULT 2
US-10-153-185-13
; Sequence 13, Application US/10153185
; Publication No. US20030148959A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds

```
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; CURRENT FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 13
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-13

Query Match
Best Local Similarity 100.0%; Score 60; DB 4; Length 10;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 1 NYNFFPRKPK 10
|||||

RESULT 3
US-10-219-561-13
; Sequence 13, Application US/10219561
; Publication No. US20030166567A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; APPLICANT: Villanueva, Julie M.
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.008US2
; CURRENT APPLICATION NUMBER: US/10/219,561
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 13
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-561-13

Query Match
Best Local Similarity 100.0%; Score 60; DB 4; Length 10;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 1 NYNFFPRKPK 10
|||||

RESULT 4
US-10-032-376A-13
; Sequence 13, Application US/10032376A
; Publication No. US20040127420A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Steven
; TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing
; FILE REFERENCE: 1443.008US1
; CURRENT APPLICATION NUMBER: US/10/032,376A
; CURRENT FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 13
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-032-376A-13

Query Match
Best Local Similarity 100.0%; Score 60; DB 4; Length 10;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 1 NYNFFPRKPK 10
|||||

RESULT 5
US-10-335-207-13
; Sequence 13, Application US/10335207
; Publication No. US20040127421A1
; GENERAL INFORMATION:
; APPLICANT: Malik, Sohail
; APPLICANT: Quirk, Stephen
; TITLE OF INVENTION: Method to Increase Fibronectin
; FILE REFERENCE: 1443.047US1
; CURRENT APPLICATION NUMBER: US/10/335,207
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 13
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-335-207-13

Query Match
Best Local Similarity 100.0%; Score 60; DB 4; Length 10;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 1 NYNFFPRKPK 10
|||||

RESULT 6
US-10-601-059-13
; Sequence 13, Application US/10601059
; Publication No. US20040259802A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shu-Ping
; APPLICANT: Quirk, Stephen
; APPLICANT: Kimberly-Clark Worldwide, Inc.
; TITLE OF INVENTION: Anti-Chondrosarcoma Compounds
; FILE REFERENCE: 1443.064US1
; CURRENT APPLICATION NUMBER: US/10/601,059
; CURRENT FILING DATE: 2003-06-20
; PRIOR APPLICATION NUMBER: US 10/335,207
; PRIOR FILING DATE: 2002-12-30
; PRIOR APPLICATION NUMBER: US 10/219,329
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: PCT/US02/26319
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 13
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-601-059-13
```


US-10-601-059-13

Query Match 100.0%; Score 60; DB 5; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.0037;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 1 NYNFFPRKPK 10

RESULT 7

US-11-031-488-13
; Sequence 13, Application US/11031488
; Publication No. US20050239710A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/11/031,488
; CURRENT FILING DATE: 2005-01-07
; PRIOR APPLICATION NUMBER: US/10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 13
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-031-488-13

Query Match 100.0%; Score 60; DB 6; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.0037;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 1 NYNFFPRKPK 10

RESULT 8

US-10-219-329-11
; Sequence 11, Application US/10219329
; Publication No. US20030096757A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Weart, Ilona f.
; TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds
; FILE REFERENCE: 1443.035WO1
; CURRENT APPLICATION NUMBER: US/10/219,329
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-329-11

Query Match 100.0%; Score 60; DB 4; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.0069;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10

Db 10 NYNFFPRKPK 19
|||||

RESULT 9

US-10-153-185-11
; Sequence 11, Application US/10153185
; Publication No. US20030148959A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; CURRENT FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-11

Query Match 100.0%; Score 60; DB 4; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.0069;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 10 NYNFFPRKPK 19

RESULT 10

US-10-219-561-11
; Sequence 11, Application US/10219561
; Publication No. US20030166567A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; APPLICANT: Villanueva, Julie M.
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.008US2
; CURRENT APPLICATION NUMBER: US/10/219,561
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-561-11

Query Match 100.0%; Score 60; DB 4; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.0069;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 10 NYNFFPRKPK 19

RESULT 11

US-10-032-376A-11

```
; Sequence 11, Application US/10032376A
; Publication No. US20040127420A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Steven
; TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing
; FILE REFERENCE: 1443.008US1
; CURRENT APPLICATION NUMBER: US/10/032,376A
; CURRENT FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-032-376A-11

Query Match      100.0%; Score 60; DB 4; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.0069;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 NYNFFPRKPK 10
Db      10 NYNFFPRKPK 19
|||||

RESULT 12
US-10-335-207-11
; Sequence 11, Application US/10335207
; Publication No. US20040127421A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; TITLE OF INVENTION: Method to Increase Fibronection
; FILE REFERENCE: 1443.047US1
; CURRENT APPLICATION NUMBER: US/10/335,207
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-335-207-11

Query Match      100.0%; Score 60; DB 4; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.0069;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 NYNFFPRKPK 10
Db      10 NYNFFPRKPK 19
|||||

RESULT 13
US-10-601-059-11
; Sequence 11, Application US/10601059
; Publication No. US20040259802A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shu-Ping
; APPLICANT: Quirk, Stephen
; APPLICANT: Kimberly-Clark Worldwide, Inc.
; TITLE OF INVENTION: Anti-Chondrosarcoma Compounds
; FILE REFERENCE: 1443.064US1
; CURRENT APPLICATION NUMBER: US/10/601,059
; CURRENT FILING DATE: 2003-06-20
; PRIOR APPLICATION NUMBER: US 10/335,207
; PRIOR FILING DATE: 2002-12-30
; PRIOR APPLICATION NUMBER: US 10/219,329
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: PCT/US02/26319
; PRIOR FILING DATE: 2002-08-15

; Sequence 11, Application US/10032376A
; Publication No. US20040127420A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Steven
; TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing
; FILE REFERENCE: 1443.008US1
; CURRENT APPLICATION NUMBER: US/10/032,376A
; CURRENT FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-032-376A-11

Query Match      100.0%; Score 60; DB 5; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.0069;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 NYNFFPRKPK 10
Db      10 NYNFFPRKPK 19
|||||

RESULT 14
US-11-031-488-11
; Sequence 11, Application US/11031488
; Publication No. US20050239710A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/11/031,488
; CURRENT FILING DATE: 2005-01-07
; PRIOR APPLICATION NUMBER: US/10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-031-488-11

Query Match      100.0%; Score 60; DB 6; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.0069;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 NYNFFPRKPK 10
Db      10 NYNFFPRKPK 19
|||||

RESULT 15
US-10-219-329-15
; Sequence 15, Application US/10219329
; Publication No. US20030096757A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Weart, Ilona f.
; TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds
; FILE REFERENCE: 1443.035WO1
; CURRENT APPLICATION NUMBER: US/10/219,329
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 23
```

```

; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-329-15

Query Match
Best Local Similarity 100.0%; Score 60; DB 4; Length 43;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
Db 33 NYNFFPRKPK 42

RESULT 16
US-10-153-185-15
; Sequence 15, Application US/10153185
; Publication No. US20030148959A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; CURRENT FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-15

Query Match
Best Local Similarity 100.0%; Score 60; DB 4; Length 43;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
Db 33 NYNFFPRKPK 42

RESULT 17
US-10-219-561-15
; Sequence 15, Application US/10219561
; Publication No. US20030166567A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Villanueva, Julie M.
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.008US2
; CURRENT APPLICATION NUMBER: US/10/219,561
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-561-15

```

```

Query Match
Best Local Similarity 100.0%; Score 60; DB 4; Length 43;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
Db 33 NYNFFPRKPK 42

RESULT 18
US-10-032-376A-15
; Sequence 15, Application US/10032376A
; Publication No. US20040127420A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Steven
; TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing
; FILE REFERENCE: 1443.008US1
; CURRENT APPLICATION NUMBER: US/10/032,376A
; CURRENT FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-032-376A-15

Query Match
Best Local Similarity 100.0%; Score 60; DB 4; Length 43;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
Db 33 NYNFFPRKPK 42

RESULT 19
US-10-335-207-15
; Sequence 15, Application US/10335207
; Publication No. US20040127421A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Method to Increase Fibronectin
; FILE REFERENCE: 1443.047US1
; CURRENT APPLICATION NUMBER: US/10/335,207
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-335-207-15

Query Match
Best Local Similarity 100.0%; Score 60; DB 4; Length 43;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYNFFPRKPK 10
Db 33 NYNFFPRKPK 42

RESULT 20
US-10-601-059-15
; Sequence 15, Application US/10601059
; Publication No. US20040259802A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shu-Ping

```

```
; APPLICANT: Quirk, Stephen
; APPLICANT: Kimberly-Clark Worldwide, Inc.
; TITLE OF INVENTION: Anti-Chondrosarcoma Compounds
; FILE REFERENCE: 1443.064US1
; CURRENT APPLICATION NUMBER: US/10/601,059
; CURRENT FILING DATE: 2003-06-20
; PRIOR APPLICATION NUMBER: US 10/335,207
; PRIOR FILING DATE: 2002-12-30
; PRIOR APPLICATION NUMBER: US 10/219,329
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: PCT/US02/26319
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-601-059-15

Query Match      100.0%; Score 60; DB 5; Length 43;
Best Local Similarity 100.0%; Pred. No. 0.015;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYNFFPRKPK 10
DB      33 NYNFFPRKPK 42

RESULT 21
US-11-031-488-15
; Sequence 15, Application US/11031488
; Publication No. US20050239710A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/11/031,488
; CURRENT FILING DATE: 2005-01-07
; PRIOR APPLICATION NUMBER: US/10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-031-488-15

Query Match      100.0%; Score 60; DB 6; Length 43;
Best Local Similarity 100.0%; Pred. No. 0.015;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYNFFPRKPK 10
DB      33 NYNFFPRKPK 42

RESULT 22
US-10-219-329-2
; Sequence 2, Application US/10219329
; Publication No. US20030096757A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Villanueva, Julie M.
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.008US2
; CURRENT APPLICATION NUMBER: US/10/219,561
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
```

```
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Weart, Ilona f.
; TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds
; FILE REFERENCE: 1443.035WO1
; CURRENT APPLICATION NUMBER: US/10/219,329
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-329-2

Query Match      100.0%; Score 60; DB 4; Length 44;
Best Local Similarity 100.0%; Pred. No. 0.016;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYNFFPRKPK 10
DB      33 NYNFFPRKPK 42

RESULT 23
US-10-153-185-2
; Sequence 2, Application US/10153185
; Publication No. US20030148959A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; CURRENT FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-2

Query Match      100.0%; Score 60; DB 4; Length 44;
Best Local Similarity 100.0%; Pred. No. 0.016;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYNFFPRKPK 10
DB      33 NYNFFPRKPK 42

RESULT 24
US-10-219-561-2
; Sequence 2, Application US/10219561
; Publication No. US20030166567A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.008US2
; CURRENT APPLICATION NUMBER: US/10/219,561
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
```

```
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-561-2

Query Match      100.0%; Score 60; DB 4; Length 44;
Best Local Similarity 100.0%; Pred. No. 0.016;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYNFFPRKPK 10
Db      33 NYNFFPRKPK 42

RESULT 25
US-10-032-376A-2
; Sequence 2, Application US/10032376A
; Publication No. US20040127420A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Steven
; TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing
; FILE REFERENCE: 1443.008US1
; CURRENT APPLICATION NUMBER: US/10/032,376A
; CURRENT FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-032-376A-2

Query Match      100.0%; Score 60; DB 4; Length 44;
Best Local Similarity 100.0%; Pred. No. 0.016;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYNFFPRKPK 10
Db      33 NYNFFPRKPK 42

RESULT 26
US-10-335-207-2
; Sequence 2, Application US/10335207
; Publication No. US20040127421A1
; GENERAL INFORMATION:
; APPLICANT: Malik, Sohail
; APPLICANT: Quirk, Stephen
; TITLE OF INVENTION: Method to Increase Fibronectin
; FILE REFERENCE: 1443.047US1
; CURRENT APPLICATION NUMBER: US/10/335,207
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-335-207-2

Query Match      100.0%; Score 60; DB 4; Length 44;
Best Local Similarity 100.0%; Pred. No. 0.016;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYNFFPRKPK 10
Db      33 NYNFFPRKPK 42

RESULT 27
US-10-601-059-2
; Sequence 2, Application US/10601059
; Publication No. US20040259802A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shu-Ping
; APPLICANT: Quirk, Stephen
; APPLICANT: Kimberly-Clark Worldwide, Inc.
; TITLE OF INVENTION: Anti-Chondrosarcoma Compounds
; FILE REFERENCE: 1443.064US1
; CURRENT APPLICATION NUMBER: US/10/601,059
; CURRENT FILING DATE: 2003-06-20
; PRIOR APPLICATION NUMBER: US 10/335,207
; PRIOR FILING DATE: 2002-12-30
; PRIOR APPLICATION NUMBER: US 10/219,329
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: PCT/US02/26319
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-601-059-2

Query Match      100.0%; Score 60; DB 5; Length 44;
Best Local Similarity 100.0%; Pred. No. 0.016;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYNFFPRKPK 10
Db      33 NYNFFPRKPK 42

RESULT 28
US-11-031-488-2
; Sequence 2, Application US/11031488
; Publication No. US20050239710A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/11/031,488
; CURRENT FILING DATE: 2005-01-07
; PRIOR APPLICATION NUMBER: US/10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-031-488-2

Query Match      100.0%; Score 60; DB 6; Length 44;
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Best Local Similarity 100.0%; Pred. No. 0.016; Mismatches 0; Indels 0; Gaps 0;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 33 NYNFFPRKPK 42
|||||

RESULT 29
US-09-864-761-37964
; Sequence 37964, Application US/09864761
; Patent No. US20020048763A1
; GENERAL INFORMATION:
; APPLICANT: Penn, Sharron G.
; APPLICANT: Rank, David R.
; APPLICANT: Hanzel, David K.
; APPLICANT: Chen, Wensheng
; TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
; TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY
; FILE REFERENCE: Aeomica-X-1
; CURRENT APPLICATION NUMBER: US/09/864,761
; CURRENT FILING DATE: 2001-05-23
; PRIOR APPLICATION NUMBER: US 60/180,312
; PRIOR FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: US 60/207,456
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: US 09/632,366
; PRIOR FILING DATE: 2000-08-03
; PRIOR APPLICATION NUMBER: GB 24263.6
; PRIOR FILING DATE: 2000-10-04
; PRIOR APPLICATION NUMBER: US 60/236,359
; PRIOR FILING DATE: 2000-09-27
; PRIOR APPLICATION NUMBER: PCT/US01/00666
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00667
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00664
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00669
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00665
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00668
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00663
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00662
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00661
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00670
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: US 60/234,687
; PRIOR FILING DATE: 2000-09-21
; PRIOR APPLICATION NUMBER: US 09/608,408
; PRIOR FILING DATE: 2000-06-30
; PRIOR APPLICATION NUMBER: US 09/774,203
; PRIOR FILING DATE: 2001-01-29
; NUMBER OF SEQ ID NOS: 49117
; SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
; SEQ ID NO 37964
; LENGTH: 75
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: MAP TO AC007336.2
; OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 1.1
; OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 1.5
; OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 2
; OTHER INFORMATION: EST HUMAN HIT: AI752577.1, EVALUE 1.00e-41
; OTHER INFORMATION: SWISSPROT HIT: P33436, EVALUE 1.00e-42

US-09-864-761-37964

Query Match 100.0%; Score 60; DB 3; Length 75;
Best Local Similarity 100.0%; Pred. No. 0.026; Mismatches 0; Indels 0; Gaps 0;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 58 NYNFFPRKPK 67
|||||

RESULT 30
US-10-852-707-56
; Sequence 56, Application US/10852707
; Publication No. US20050142572A1
; GENERAL INFORMATION:
; APPLICANT: Macina, Roberto
; APPLICANT: Turner, Leah
; APPLICANT: Sun, Yongming
; TITLE OF INVENTION: Compositions, Splice Variants and Methods Relating to Lung Specific
; TITLE OF INVENTION: Nucleic Acids and Proteins
; FILE REFERENCE: DEX-0486
; CURRENT APPLICATION NUMBER: US/10/852,707
; CURRENT FILING DATE: 2004-05-24
; PRIOR APPLICATION NUMBER: US 60/473,941
; PRIOR FILING DATE: 2003-05-22
; NUMBER OF SEQ ID NOS: 138
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 56
; LENGTH: 462
; TYPE: PRT
; ORGANISM: Homo sapien
; US-10-852-707-56

Query Match 100.0%; Score 60; DB 5; Length 462;
Best Local Similarity 100.0%; Pred. No. 0.15; Mismatches 0; Indels 0; Gaps 0;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118
|||||

RESULT 31
US-10-450-763-54360
; Sequence 54360, Application US/10450763
; Publication No. US20050196754A1
; GENERAL INFORMATION:
; APPLICANT: Hyseq, Inc
; TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES
; FILE REFERENCE: 790CIP3/US
; CURRENT APPLICATION NUMBER: US/10/450,763
; CURRENT FILING DATE: 2003-06-11
; PRIOR APPLICATION NUMBER: PCT/US01/08631
; PRIOR FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: 09/540,217
; PRIOR FILING DATE: 2000-03-31
; PRIOR APPLICATION NUMBER: 09/649,167
; PRIOR FILING DATE: 2000-08-23
; NUMBER OF SEQ ID NOS: 60736
; SOFTWARE: Custom
; SEQ ID NO 54360
; LENGTH: 468
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: DOMAIN
; LOCATION: (221)..(258)
; OTHER INFORMATION: Type II fibronectin collagen-binding domain proteins domain
; OTHER INFORMATION: Identified by eMATRIX, accession number BL00023, p-value=4.682e-3;
; OTHER INFORMATION: raw score of 24.31
; FEATURE:
; NAME/KEY: DOMAIN
; LOCATION: (167)..(264)
; OTHER INFORMATION: Fibronectin type II domain identified by Pfam, accession name

; OTHER INFORMATION: fn2, E-value=4.4e-55, Pfam score of 147.1
; FEATURE:
; NAME/KEY: misc feature
; LOCATION: (1)-(468)
; OTHER INFORMATION: Xaa = X or * as defined in Table 2
US-10-450-763-54360

Query Match 100.0%; Score 60; DB 5; Length 468;
Best Local Similarity 100.0%; Pred. No. 0.15; Indels 0; Gaps 0;
Matches 10; Conservative 0; Mismatches 0;

Qy 1 NYNFFPRKPK 10
Db 95 NYNFFPRKPK 104
|||||

RESULT 32

US-09-391-104-19
; Sequence 19, Application US/09391104
; Publication No. US20020031817A1
; GENERAL INFORMATION:
; APPLICANT: Abbott Laboratories
; APPLICANT: Falduto, Michael T.
; APPLICANT: Magnuson, Scott R.
; APPLICANT: Morgan, Douglas W.
; TITLE OF INVENTION: HUMAN MATRIX METALLOPROTEINASE GENE.
; TITLE OF INVENTION: PROTEINS ENCODED THEREFROM AND METHODS
; TITLE OF INVENTION: OF USING SAME
; FILE REFERENCE: 6073.US.P1
; CURRENT APPLICATION NUMBER: US/09/391,104
; CURRENT FILING DATE: 1999-09-07
; PRIOR APPLICATION NUMBER: US 08/814,394
; PRIOR FILING DATE: 1997-03-11
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 19
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-391-104-19

Query Match 100.0%; Score 60; DB 3; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.21; Indels 0; Gaps 0;
Matches 10; Conservative 0; Mismatches 0;

Qy 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118
|||||

RESULT 33

US-09-801-196-35
; Sequence 35, Application US/09801196
; Patent No. US20020037827A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Kai
; APPLICANT: Smith, Ryan
; APPLICANT: Fajardo, Mark
; APPLICANT: Moss, Patrick
; TITLE OF INVENTION: A NOVEL MATRIX METALLOPROTEINASE (MMP-25)
; TITLE OF INVENTION: EXPRESSED IN SKIN CELLS
; FILE REFERENCE: 240083.509
; CURRENT APPLICATION NUMBER: US/09/801,196
; CURRENT FILING DATE: 2001-03-06
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 35
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-801-196-35

Query Match 100.0%; Score 60; DB 3; Length 660;

Best Local Similarity 100.0%; Pred. No. 0.21; Indels 0; Gaps 0;
Matches 10; Conservative 0; Mismatches 0;

Qy 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118
|||||

RESULT 34

US-09-918-715-208
; Sequence 208, Application US/09918715
; Publication No. US20030017157A1
; GENERAL INFORMATION:
; APPLICANT: Brad St. Croix
; APPLICANT: Bert Vogelstein
; APPLICANT: Kenneth Kinzler
; TITLE OF INVENTION: ENDOTHELIAL CELL EXPRESSION PATTERNS
; FILE REFERENCE: 1107.00134
; CURRENT APPLICATION NUMBER: US/09/918,715
; CURRENT FILING DATE: 2001-08-01
; PRIOR APPLICATION NUMBER: 60/222,599
; PRIOR FILING DATE: 2000-08-02
; PRIOR APPLICATION NUMBER: 60/224,360
; PRIOR FILING DATE: 2000-08-11
; PRIOR APPLICATION NUMBER: 60/282,850
; PRIOR FILING DATE: 2000-04-11
; NUMBER OF SEQ ID NOS: 358
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 208
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-918-715-208

Query Match 100.0%; Score 60; DB 3; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.21; Indels 0; Gaps 0;
Matches 10; Conservative 0; Mismatches 0;

Qy 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118
|||||

RESULT 35

US-10-219-329-14
; Sequence 14, Application US/10219329
; Publication No. US20030096757A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Weart, Ilona f.
; TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds
; FILE REFERENCE: 1443.03SWO1
; CURRENT APPLICATION NUMBER: US/10/219,329
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-329-14

Query Match 100.0%; Score 60; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.21; Indels 0; Gaps 0;
Matches 10; Conservative 0; Mismatches 0;

Qy 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118
|||||

```
Db      109 NYNFFPRKPK 118

RESULT 36
US-10-301-822-125
; Sequence 125, Application US/10301822
; Publication No. US20030148410A1
; GENERAL INFORMATION:
; APPLICANT: Millennium Pharmaceuticals, Inc.
; APPLICANT: Berger, Allison
; APPLICANT: Guillemette, Tracy L.
; APPLICANT: Kamatkar, Shubhangi
; APPLICANT: Schlegel, Robert
; APPLICANT: Monahan, John E.
; APPLICANT: Thibodeau, Stephen N.
; APPLICANT: Burgart, Lawrence J.
; TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
; TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
; TITLE OF INVENTION: THERAPY OF COLON CANCER
; FILE REFERENCE: MPM01-029P2RNM
; CURRENT APPLICATION NUMBER: US/10/301,822
; CURRENT FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US 60/339,971
; PRIOR FILING DATE: 2001-12-10
; PRIOR APPLICATION NUMBER: US 60/361,978
; PRIOR FILING DATE: 2002-03-05
; PRIOR APPLICATION NUMBER: US 60/381,988
; PRIOR FILING DATE: 2002-05-20
; NUMBER OF SEQ ID NOS: 228
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 125
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo Sapiens
US-10-301-822-125

Query Match      100.0%; Score 60; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYNFFPRKPK 10
      |||||
Db      109 NYNFFPRKPK 118

RESULT 37
US-10-153-185-14
; Sequence 14, Application US/10153185
; Publication No. US20030148959A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/10/153,185
; CURRENT FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-14

Query Match      100.0%; Score 60; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYNFFPRKPK 10
      |||||
Db      109 NYNFFPRKPK 118

RESULT 38
US-10-219-561-14
; Sequence 14, Application US/10219561
; Publication No. US20030166567A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; APPLICANT: Willanueva, Julie M.
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.008US2
; CURRENT APPLICATION NUMBER: US/10/219,561
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-561-14

Query Match      100.0%; Score 60; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYNFFPRKPK 10
      |||||
Db      109 NYNFFPRKPK 118

RESULT 39
US-10-131-985-25
; Sequence 25, Application US/10131985
; Publication No. US20030199440A1
; GENERAL INFORMATION:
; APPLICANT: Dack, Kevin N
; APPLICANT: Davies, Michael J
; APPLICANT: Fish, Paul V
; APPLICANT: Huggins, Jonathan P
; APPLICANT: McIntosh, Fraser S
; APPLICANT: Occleston, Nicholas L
; TITLE OF INVENTION: Composition
; FILE REFERENCE: PCS 10391A
; CURRENT APPLICATION NUMBER: US/10/131,985
; CURRENT FILING DATE: 2002-04-25
; PRIOR APPLICATION NUMBER: US/09/726,295
; PRIOR FILING DATE: 2000-11-30
; PRIOR APPLICATION NUMBER: GB 9930768.8
; PRIOR FILING DATE: 1999-12-29
; NUMBER OF SEQ ID NOS: 60
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 25
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-131-985-25

Query Match      100.0%; Score 60; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYNFFPRKPK 10
      |||||
Db      109 NYNFFPRKPK 118
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; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-335-207-14

Query Match      100.0%; Score 60; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 NYNFFPRKPK 10
Db      109 NYNFFPRKPK 118

RESULT 43
US-10-480-621-1
; Sequence 1, Application US/10480621
; Publication No. US20040175817A1
; GENERAL INFORMATION:
; APPLICANT: Jepson, Holly
; APPLICANT: Minshull, Claire
; APPLICANT: Paupitt, Richard
; APPLICANT: Rowsell, Sian
; TITLE OF INVENTION: A CRYSTALLISED CATALYTIC DOMAIN OF MATRIX
; TITLE OF INVENTION: METALLOPROTEINASE 9 (MMP9) AND THE USE OF
; TITLE OF INVENTION: ITS THREE DIMENSIONAL STRUCTURE TO DESIGN
; FILE REFERENCE: 06275-377US1
; CURRENT APPLICATION NUMBER: US/10/480, 621
; CURRENT FILING DATE: 2003-12-12
; PRIOR APPLICATION NUMBER: PCT/SE02/01266
; PRIOR FILING DATE: 2002-06-24
; PRIOR APPLICATION NUMBER: SE 0102298-7
; PRIOR FILING DATE: 2001-06-27
; NUMBER OF SEQ ID NOS: 2
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 1
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-480-621-1

Query Match      100.0%; Score 60; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 NYNFFPRKPK 10
Db      109 NYNFFPRKPK 118

RESULT 44
US-10-474-794-208
; Sequence 208, Application US/10474794
; Publication No. US20040213793A1
; GENERAL INFORMATION:
; APPLICANT: Carson-Walter, Eleanor
; APPLICANT: St. Croix, Brad
; APPLICANT: Vogelstein, Bert
; APPLICANT: Kinzler, Kenneth
; TITLE OF INVENTION: ENDOTHELIAL CELL EXPRESSION PATTERNS
; FILE REFERENCE: 1107.00179
; CURRENT APPLICATION NUMBER: US/10/474, 794
; CURRENT FILING DATE: 2003-10-14
; PRIOR APPLICATION NUMBER: 60/282,850
; PRIOR FILING DATE: 2001-04-11
; PRIOR APPLICATION NUMBER: 60/308,829
; PRIOR FILING DATE: 2001-08-01
; NUMBER OF SEQ ID NOS: 359
; SOFTWARE: FastSeq for Windows Version 4.0

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; SEQ ID NO 208
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-474-794-208

Query Match      100.0%; Score 60; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYNFFPRKPK 10
        |||||
Db       109 NYNFFPRKPK 118

RESULT 45
US-10-601-059-14
; Sequence 14, Application US/10601059
; Publication No. US20040259802A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shu-Ping
; APPLICANT: Quirk, Stephen
; APPLICANT: Kimberly-Clark Worldwide, Inc.
; TITLE OF INVENTION: Anti-Chondrosarcoma Compounds
; FILE REFERENCE: 1443.064US1
; CURRENT APPLICATION NUMBER: US/10/601,059
; CURRENT FILING DATE: 2003-06-20
; PRIOR APPLICATION NUMBER: US 10/335,207
; PRIOR FILING DATE: 2002-12-30
; PRIOR APPLICATION NUMBER: US 10/219,329
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: PCT/US02/26319
; PRIOR FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-601-059-14

Query Match      100.0%; Score 60; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYNFFPRKPK 10
        |||||
Db       109 NYNFFPRKPK 118

RESULT 46
US-10-872-198-131
; Sequence 131, Application US/10872198
; Publication No. US20050002897A1
; GENERAL INFORMATION:
; APPLICANT: Ulrich HAUPTS
; APPLICANT: Andre KOLTERMANN
; APPLICANT: Andreas SCHEIDIG
; APPLICANT: Christian VOETSMEIER
; APPLICANT: Ulrich Kettling
; TITLE OF INVENTION: NEW BIOLOGICAL ENTITIES AND USE THEREOF
; FILE REFERENCE: 04155.000204
; CURRENT APPLICATION NUMBER: US/10/872,198
; CURRENT FILING DATE: 2004-06-18
; PRIOR APPLICATION NUMBER: 60/543,518
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/524,960
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; PRIOR FILING DATE: 2003-11-25
; PRIOR APPLICATION NUMBER: EP 04003058
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: EP 03025871
; PRIOR FILING DATE: 2003-11-11
; PRIOR APPLICATION NUMBER: EP 03025851
; PRIOR FILING DATE: 2003-11-10
; PRIOR APPLICATION NUMBER: EP 03013819
; PRIOR FILING DATE: 2003-06-18
; NUMBER OF SEQ ID NOS: 149
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 131
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-872-198-131

Query Match      100.0%; Score 60; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYNFFPRKPK 10
        |||||
Db       109 NYNFFPRKPK 118

RESULT 47
US-10-901-417-25
; Sequence 25, Application US/10901417
; Publication No. US20050026836A1
; GENERAL INFORMATION:
; APPLICANT: Dack, Kevin N
; APPLICANT: Davies, Michael J
; APPLICANT: Fish, Paul V
; APPLICANT: Huggins, Jonathan P
; APPLICANT: McIntosh, Fraser S
; APPLICANT: Occleston, Nicholas L
; TITLE OF INVENTION: Composition
; FILE REFERENCE: PCS 10391A
; CURRENT APPLICATION NUMBER: US/10/901,417
; CURRENT FILING DATE: 2004-07-28
; PRIOR APPLICATION NUMBER: US/10/131,985
; PRIOR FILING DATE: 2002-04-25
; PRIOR APPLICATION NUMBER: US/09/726,295
; PRIOR FILING DATE: 2000-11-30
; PRIOR APPLICATION NUMBER: GB 9930768.8
; PRIOR FILING DATE: 1999-12-29
; NUMBER OF SEQ ID NOS: 60
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 25
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-901-417-25

Query Match      100.0%; Score 60; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYNFFPRKPK 10
        |||||
Db       109 NYNFFPRKPK 118

RESULT 48
US-10-979-159-208
; Sequence 208, Application US/10979159
; Publication No. US20050142138A1
; GENERAL INFORMATION:
; APPLICANT: Brad St. Croix
; APPLICANT: Bert Vogelstein
; APPLICANT: Kenneth Kinzler
; TITLE OF INVENTION: ENDOTHELIAL CELL EXPRESSION PATTERNS
```

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; FILE REFERENCE: 1107.00134
; CURRENT APPLICATION NUMBER: US/10/979,159
; CURRENT FILING DATE: 2004-11-03
; PRIOR APPLICATION NUMBER: US/09/918,715
; PRIOR FILING DATE: 2001-08-01
; PRIOR APPLICATION NUMBER: 60/222,599
; PRIOR FILING DATE: 2000-08-02
; PRIOR APPLICATION NUMBER: 60/224,360
; PRIOR FILING DATE: 2000-08-11
; PRIOR APPLICATION NUMBER: 60/282,850
; PRIOR FILING DATE: 2000-04-11
; NUMBER OF SEQ ID NOS: 358
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 208
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-979-159-208

Query Match      100.0%; Score 60; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 NYNFFPRKPK 10
      |||||
Db      109 NYNFFPRKPK 118

RESULT 49
US-10-287-436A-489
; Sequence 489, Application US/10287436A
; Publication No. US20050202421A1
; GENERAL INFORMATION:
; APPLICANT: CHILDREN'S HOSPITAL MEDICAL CENTER
; TITLE OF INVENTION: METHOD FOR DIAGNOSIS AND TREATMENT OF
; FILE OF INVENTION: RHEUMATOID ARTHRITIS
; FILE REFERENCE: 10872.514696
; CURRENT APPLICATION NUMBER: US/10/287,436A
; CURRENT FILING DATE: 2002-10-31
; PRIOR APPLICATION NUMBER: US 60/336,220
; PRIOR FILING DATE: 2001-10-31
; NUMBER OF SEQ ID NOS: 1446
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 489
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-287-436A-489

Query Match      100.0%; Score 60; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 NYNFFPRKPK 10
      |||||
Db      109 NYNFFPRKPK 118

RESULT 50
US-10-287-436A-1185
; Sequence 1185, Application US/10287436A
; Publication No. US20050202421A1
; GENERAL INFORMATION:
; APPLICANT: CHILDREN'S HOSPITAL MEDICAL CENTER
; TITLE OF INVENTION: METHOD FOR DIAGNOSIS AND TREATMENT OF
; FILE OF INVENTION: RHEUMATOID ARTHRITIS
; FILE REFERENCE: 10872.514696
; CURRENT APPLICATION NUMBER: US/10/287,436A
; CURRENT FILING DATE: 2002-10-31
; PRIOR APPLICATION NUMBER: US 60/336,220
; PRIOR FILING DATE: 2001-10-31
; NUMBER OF SEQ ID NOS: 1446
; SOFTWARE: FastSEQ for Windows Version 4.0

; SEQ ID NO 1185
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-287-436A-1185

Query Match      100.0%; Score 60; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 NYNFFPRKPK 10
      |||||
Db      109 NYNFFPRKPK 118

RESULT 51
US-11-021-951-131
; Sequence 131, Application US/11021951
; Publication No. US20050175581A1
; GENERAL INFORMATION:
; APPLICANT: HAUPTS, Ulrich
; APPLICANT: KOLTERMANN, Andreas
; APPLICANT: SCHEIDIG, Andreas
; APPLICANT: VOTSMEIER, Christian
; APPLICANT: Kettling, Ulrich
; APPLICANT: COCO, Wayne Michael
; TITLE OF INVENTION: New Biological Entities And The Pharmaceutical
; TITLE OF INVENTION: And Diagnostic Use Thereof
; FILE REFERENCE: 04156.000205
; CURRENT APPLICATION NUMBER: US/11/021,951
; CURRENT FILING DATE: 2004-12-22
; PRIOR APPLICATION NUMBER: 10/872,198
; PRIOR FILING DATE: 2004-06-18
; PRIOR APPLICATION NUMBER: 60/543,518
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/524,960
; PRIOR FILING DATE: 2003-11-25
; PRIOR APPLICATION NUMBER: EP 04003058
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: EP 03025871
; PRIOR FILING DATE: 2003-11-11
; PRIOR APPLICATION NUMBER: EP 03025851
; PRIOR FILING DATE: 2003-11-10
; PRIOR APPLICATION NUMBER: EP 03013819
; PRIOR FILING DATE: 2003-06-18
; NUMBER OF SEQ ID NOS: 191
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 131
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-021-951-131

Query Match      100.0%; Score 60; DB 6; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 NYNFFPRKPK 10
      |||||
Db      109 NYNFFPRKPK 118

RESULT 52
US-11-031-488-14
; Sequence 14, Application US/11031488
; Publication No. US20050239710A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Schail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/11/031,488
; CURRENT FILING DATE: 2005-01-07
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; PRIOR APPLICATION NUMBER: US/10/153,185
; PRIOR FILING DATE: 2002-05-21
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-031-488-14

Query Match 100.0%; Score 60; DB 6; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
| | | | | | | | | |
Db 109 NYNFFPRKPK 118

RESULT 53
US-10-115-223-30
; Sequence 30, Application US/10115223
; Publication No. US20030176334A1
; GENERAL INFORMATION:
; APPLICANT: Brooks, Peter
; TITLE OF INVENTION: METHODS AND COMPOSITIONS USEFUL FOR INHIBITION OF
; TITLE OF INVENTION: ANGIOGENESIS
; FILE REFERENCE: MER0049S
; CURRENT APPLICATION NUMBER: US/10/115,223
; CURRENT FILING DATE: 2002-04-02
; PRIOR APPLICATION NUMBER: US/09/194,468
; PRIOR FILING DATE: 1999-03-23
; PRIOR APPLICATION NUMBER: 60/018,773
; PRIOR FILING DATE: 1996-05-31
; PRIOR APPLICATION NUMBER: 60/015,896
; PRIOR FILING DATE: 1996-05-31
; PRIOR APPLICATION NUMBER: PCT/US97/09158
; PRIOR FILING DATE: 1997-05-30
; NUMBER OF SEQ ID NOS: 45
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 30
; LENGTH: 663
; TYPE: PRT
; ORGANISM: Gallus gallus
US-10-115-223-30

Query Match 100.0%; Score 60; DB 4; Length 663;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
| | | | | | | | | |
Db 106 NYNFFPRKPK 115

RESULT 54
US-10-402-212-30
; Sequence 30, Application US/10402212
; Publication No. US20040063790A1
; GENERAL INFORMATION:
; APPLICANT: Brooks, Peter C.
; APPLICANT: Cheresch, David A.
; APPLICANT: Silletti, Steven A.
; APPLICANT: The Scripps Research Institute
; TITLE OF INVENTION: METHODS FOR INHIBITION OF ANGIOGENESIS
; FILE REFERENCE: TSRI-419.3
; CURRENT APPLICATION NUMBER: US/10/402,212
; CURRENT FILING DATE: 2003-03-28

; PRIOR APPLICATION NUMBER: 10/115,223
; PRIOR FILING DATE: 2002-04-02
; PRIOR APPLICATION NUMBER: 09/194,468
; PRIOR FILING DATE: 1999-03-23
; PRIOR APPLICATION NUMBER: PCT/US97/09158
; PRIOR FILING DATE: 1997-05-30
; PRIOR APPLICATION NUMBER: 60/018,773
; PRIOR FILING DATE: 1996-05-31
; PRIOR APPLICATION NUMBER: 60/015,869
; PRIOR FILING DATE: 1996-05-31
; NUMBER OF SEQ ID NOS: 47
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 30
; LENGTH: 663
; TYPE: PRT
; ORGANISM: Gallus gallus
US-10-402-212-30

Query Match 100.0%; Score 60; DB 4; Length 663;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
| | | | | | | | | |
Db 106 NYNFFPRKPK 115

RESULT 55
US-10-450-763-54358
; Sequence 54358, Application US/10450763
; Publication No. US20050196754A1
; GENERAL INFORMATION:
; APPLICANT: Hyseq, Inc
; TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES
; FILE REFERENCE: 790CIP3/US
; CURRENT APPLICATION NUMBER: US/10/450,763
; CURRENT FILING DATE: 2003-06-11
; PRIOR APPLICATION NUMBER: PCT/US01/08631
; PRIOR FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: 09/540,217
; PRIOR FILING DATE: 2000-03-31
; PRIOR APPLICATION NUMBER: 09/649,167
; PRIOR FILING DATE: 2000-08-23
; NUMBER OF SEQ ID NOS: 60736
; SOFTWARE: Custom
; SEQ ID NO 54358
; LENGTH: 1330
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: DOMAIN
; LOCATION: (579)..(616)
; OTHER INFORMATION: Type II fibronectin collagen-binding domain proteins domain
; OTHER INFORMATION: identified by eMATRIX, accession number BL00023, p-value=4.682e-3
; OTHER INFORMATION: raw score of 24.31
; FEATURE:
; NAME/KEY: DOMAIN
; LOCATION: (271)..(451)
; OTHER INFORMATION: Matrixin domain identified by PFam, accession name
; OTHER INFORMATION: Peptidase_M10, E-value=3.7e-109, PFam score of 376.1
US-10-450-763-54358

Query Match 100.0%; Score 60; DB 5; Length 1330;
Best Local Similarity 100.0%; Pred. No. 0.42;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
| | | | | | | | | |
Db 327 NYNFFPRKPK 336

Search completed: February 21, 2006, 18:35:36
Job time : 76.8421 secs

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OM protein - protein search, using sw model

Run on: February 21, 2006, 08:21:13 ; Search time 6.57895 Seconds
(without alignments)
21.644 Million cell updates/sec

Title: US-10-601-059-13
Perfect score: 60
Sequence: 1 NYNFFPRKPK 10

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 108093 seqs, 14239677 residues

Total number of hits satisfying chosen parameters: 108093

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published Applications AA New:
1: /cgn2_6/ptodata/1/pubppa/US08_NEW_PUB.pdb:
2: /cgn2_6/ptodata/1/pubppa/US06_NEW_PUB.pdb:
3: /cgn2_6/ptodata/1/pubppa/US07_NEW_PUB.pdb:
4: /cgn2_6/ptodata/1/pubppa/PCT_NEW_PUB.pdb:
5: /cgn2_6/ptodata/1/pubppa/US09_NEW_PUB.pdb:
6: /cgn2_6/ptodata/1/pubppa/US10_NEW_PUB.pdb:
7: /cgn2_6/ptodata/1/pubppa/US11_NEW_PUB.pdb:
8: /cgn2_6/ptodata/1/pubppa/US60_NEW_PUB.pdb:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	60	100.0	660	7	US-11-186-284-125
2	60	100.0	708	6	US-10-821-234-917
3	37	61.7	198	6	US-10-793-626-1572
4	37	61.7	483	7	US-11-037-243-79
5	36	60.0	71	6	US-10-467-657-8637
6	36	60.0	1360	7	US-11-188-743-22
7	36	60.0	1360	7	US-11-183-294-26
8	35	58.3	559	6	US-10-821-234-947
9	35	58.3	713	7	US-11-072-512-2818
10	34	56.7	15	6	US-10-718-264-105
11	34	56.7	15	6	US-10-718-264-106
12	34	56.7	15	6	US-10-718-264-105
13	34	56.7	15	6	US-10-718-264-106
14	34	56.7	21	6	US-10-895-064-1953
15	34	56.7	108	7	US-11-049-536-244
16	34	56.7	231	7	US-11-107-219-6
17	34	56.7	233	6	US-10-718-264-12
18	34	56.7	233	6	US-10-718-264-167
19	34	56.7	233	6	US-10-718-264-168
20	34	56.7	233	6	US-10-718-264-12
21	34	56.7	233	6	US-10-718-264-167
22	34	56.7	233	6	US-10-718-264-168
23	34	56.7	233	7	US-11-217-562-6
24	34	56.7	795	6	US-10-821-234-1002
25	33	55.0	20	6	US-10-485-788A-583

26	33	55.0	64	6	US-10-467-657-9117	Sequence 9117, Ap
27	33	55.0	252	7	US-11-098-686-10372	Sequence 10372, A
28	33	55.0	265	6	US-10-793-626-2500	Sequence 2500, Ap
29	33	55.0	267	6	US-10-995-561-542	Sequence 542, App
30	33	55.0	267	7	US-11-186-284-129	Sequence 129, App
31	33	55.0	318	7	US-11-098-686-10543	Sequence 10543, A
32	33	55.0	756	7	US-11-113-837-20	Sequence 20, Appl
33	33	55.0	1783	7	US-11-126-313-38	Sequence 38, Appl
34	32	53.3	45	6	US-10-689-742-168	Sequence 168, App
35	32	53.3	105	6	US-10-834-397-166	Sequence 166, App
36	32	53.3	106	7	US-11-144-248-26	Sequence 26, Appl
37	32	53.3	106	7	US-11-024-251-29	Sequence 29, Appl
38	32	53.3	106	7	US-11-165-141-17	Sequence 17, Appl
39	32	53.3	106	7	US-11-144-222-26	Sequence 26, Appl
40	32	53.3	106	7	US-11-005-726-165	Sequence 165, App
41	32	53.3	106	7	US-11-182-343-26	Sequence 26, Appl
42	32	53.3	107	6	US-10-999-866-40	Sequence 40, Appl
43	32	53.3	107	6	US-10-886-383-8	Sequence 8, Appl
44	32	53.3	107	6	US-10-988-207-21	Sequence 21, Appl
45	32	53.3	107	6	US-10-982-440-67	Sequence 67, Appl

ALIGNMENTS

RESULT 1

US-11-186-284-125
; Sequence 125, Application US/11186284
; Publication No. US20050266493A1
; GENERAL INFORMATION:
; APPLICANT: Millennium Pharmaceuticals, Inc.
; APPLICANT: Berger, Allison
; APPLICANT: Guillemette, Tracy L.
; APPLICANT: Kamatkar, Shubhangi
; APPLICANT: Schlegel, Robert
; APPLICANT: Monahan, John E.
; APPLICANT: Thibodeau, Stephen N.
; APPLICANT: Burgart, Lawrence J.
; TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
; TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
; FILE OF INVENTION: THERAPY OF COLON CANCER
; FILE REFERENCE: MEM01-029P2RNM
; CURRENT FILING DATE: 2005-07-21
; PRIOR FILING DATE: 2005-07-21
; PRIOR APPLICATION NUMBER: US/10/301,822
; PRIOR FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US 60/339,971
; PRIOR FILING DATE: 2001-12-10
; PRIOR APPLICATION NUMBER: US 60/361,978
; PRIOR FILING DATE: 2002-03-05
; PRIOR APPLICATION NUMBER: US 60/381,988
; PRIOR FILING DATE: 2002-05-20
; NUMBER OF SEQ ID NOS: 228
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 125
; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo Sapiens
US-11-186-284-125

Query Match 100.0%; Score 60; DB 7; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.0034;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
Db 109 NYNFFPRKPK 118

RESULT 2

US-10-821-234-917
; Sequence 917, Application US/10821234
; Publication No. US20050255114A1

```
; GENERAL INFORMATION:
; APPLICANT: Labat, Ivan
; APPLICANT: Stache-Crain, Birgit
; APPLICANT: Andarmani, Susan
; APPLICANT: Tang, Y. Tom
; TITLE OF INVENTION: Methods for Diagnosis and Treatment of Preeclampsia
; FILE REFERENCE: 821A
; CURRENT APPLICATION NUMBER: US/10/821,234
; CURRENT FILING DATE: 2004-04-07
; PRIOR APPLICATION NUMBER: US 60/462,047
; PRIOR FILING DATE: 2003-04-07
; NUMBER OF SEQ ID NOS: 1704
; SOFTWARE: pt_seq_genes Version 1.0
; SEQ ID NO 917
; LENGTH: 708
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-821-234-917

Query Match 100.0%; Score 60; DB 6; Length 708;
Best Local Similarity 100.0%; Pred. No. 0.0037;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
DB 157 NYNFFPRKPK 166

RESULT 3
US-10-793-626-1572
; Sequence 1572, Application US/10793626
; Publication No. US20050255478A1
; GENERAL INFORMATION:
; APPLICANT: KIMMERLY, WILLIAM JOHN
; TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS
; FILE REFERENCE: PU3480US
; CURRENT APPLICATION NUMBER: US/10/793,626
; CURRENT FILING DATE: 2004-03-04
; PRIOR APPLICATION NUMBER: 60/164,258
; PRIOR FILING DATE: 1999-11-09
; NUMBER OF SEQ ID NOS: 4472
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1572
; LENGTH: 198
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: synthetic
; OTHER INFORMATION: amino acid sequence
US-10-793-626-1572

Query Match 61.7%; Score 37; DB 6; Length 198;
Best Local Similarity 75.0%; Pred. No. 9.9;
Matches 6; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 NYNFFPRK 8
DB 41 NYNLFPHK 48

RESULT 4
US-11-037-243-79
; Sequence 79, Application US/11037243
; Publication No. US20050287546A1
; GENERAL INFORMATION:
; APPLICANT: PLOWMAN, GREGORY
; APPLICANT: WHYTE, DAVID
; APPLICANT: CAENEPEEL, SEAN
; APPLICANT: CHARYDCZAK, GLEN
; APPLICANT: MANNING, GERARD
; APPLICANT: SUDARSANAM, SUCHA
; TITLE OF INVENTION: NOVEL PROTEASES
; FILE REFERENCE: 038602/1214
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; CURRENT APPLICATION NUMBER: US/11/037,243
; CURRENT FILING DATE: 2005-05-26
; PRIOR APPLICATION NUMBER: US/09/888,615
; PRIOR FILING DATE: 2001-06-26
; PRIOR APPLICATION NUMBER: 60/214,047
; PRIOR FILING DATE: 2000-06-26
; NUMBER OF SEQ ID NOS: 150
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 79
; LENGTH: 483
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-037-243-79

Query Match 61.7%; Score 37; DB 7; Length 483;
Best Local Similarity 60.0%; Pred. No. 24;
Matches 6; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
DB 107 NYRLPGEPK 116

RESULT 5
US-10-467-657-8637
; Sequence 8637, Application US/10467657
; Publication No. US20050260581A1
; GENERAL INFORMATION:
; APPLICANT: CHIRON SPA
; APPLICANT: FONTANA Maria Rita
; APPLICANT: PIZZA Mariagrazia
; APPLICANT: MASIGNANI Vega
; APPLICANT: MONACI Elisabetta
; TITLE OF INVENTION: GONOCOCCAL PROTEINS AND NUCLEIC ACIDS
; FILE REFERENCE:
; CURRENT APPLICATION NUMBER: US/10/467,657
; CURRENT FILING DATE: 2003-08-11
; PRIOR APPLICATION NUMBER: GB-0103424.8
; PRIOR FILING DATE: 2001-02-12
; NUMBER OF SEQ ID NOS: 9218
; SOFTWARE: SeqWin99, version 1.04
; SEQ ID NO 8637
; LENGTH: 71
; TYPE: PRT
; ORGANISM: Neisseria gonorrhoeae
US-10-467-657-8637

Query Match 60.0%; Score 36; DB 6; Length 71;
Best Local Similarity 50.0%; Pred. No. 5.4;
Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

QY 1 NYNFFPRKPK 10
DB 25 NFSFFPHLPR 34

RESULT 6
US-11-188-743-22
; Sequence 22, Application US/11188743
; Publication No. US20050272140A1
; GENERAL INFORMATION:
; APPLICANT: Nicolaides, Nicholas
; APPLICANT: Sass, Philip
; APPLICANT: Kinzler, Kenneth
; APPLICANT: Grasso, Luigi
; APPLICANT: Vogelstein, Bert
; TITLE OF INVENTION: Methods for generating hypermutable
; TITLE OF INVENTION: Yeast
; FILE REFERENCE: 01107.00097
; CURRENT APPLICATION NUMBER: US/11/188,743
; CURRENT FILING DATE: 2005-07-26
; PRIOR APPLICATION NUMBER: US/10/641,068
; PRIOR FILING DATE: 2003-08-15
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;; PRIOR APPLICATION NUMBER: US/09/788,657
;; PRIOR FILING DATE: 2001-02-21
;; PRIOR APPLICATION NUMBER: 60/184,336
;; PRIOR FILING DATE: 2000-02-23
;; NUMBER OF SEQ ID NOS: 25
;; SOFTWARE: FastSeq for Windows Version 3.0
;; SEQ ID NO 22
;; LENGTH: 1360
;; TYPE: PRT
;; ORGANISM: Homo sapiens
US-11-188-743-22

Query Match 60.0%; Score 36; DB 7; Length 1360;
Best Local Similarity 62.5%; Pred. No. 98;
Matches 5; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 2 YNFFPRKP 9
|:||||:|
Db 8 YSPFPKSP 15

RESULT 7

US-11-183-294-26
;; Sequence 26, Application US/11/183294
;; Publication No. US20060019383A1
;; GENERAL INFORMATION:
;; APPLICANT: Nicolaides, Nicholas C.
;; APPLICANT: Grasso, Luigi
;; APPLICANT: Sasse, Philip M.
;; TITLE OF INVENTION: CHEMICAL INHIBITORS OF MISMATCH REPAIR
;; FILE REFERENCE: MOR-0475
;; CURRENT APPLICATION NUMBER: US/11/183,294
;; PRIOR FILING DATE: 2005-07-15
;; PRIOR APPLICATION NUMBER: US 09/760,285
;; NUMBER OF SEQ ID NOS: 44
;; SOFTWARE: PatentIn version 3.3
;; SEQ ID NO 26
;; LENGTH: 1360
;; TYPE: PRT
;; ORGANISM: Homo sapiens
US-11-183-294-26

Query Match 60.0%; Score 36; DB 7; Length 1360;
Best Local Similarity 62.5%; Pred. No. 98;
Matches 5; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 2 YNFFPRKP 9
|:||||:|
Db 8 YSPFPKSP 15

RESULT 8

US-10-821-234-947
;; Sequence 947, Application US/10821234
;; Publication No. US20050255114A1
;; GENERAL INFORMATION:
;; APPLICANT: Labat, Ivan
;; APPLICANT: Stache-Crain, Birgit
;; APPLICANT: Andarmani, Susan
;; APPLICANT: Tang, Y. Tom
;; TITLE OF INVENTION: Methods for Diagnosis and Treatment of Preeclampsia
;; FILE REFERENCE: 821A
;; CURRENT APPLICATION NUMBER: US/10/821,234
;; CURRENT FILING DATE: 2004-04-07
;; PRIOR APPLICATION NUMBER: US 60/462,047
;; PRIOR FILING DATE: 2003-04-07
;; NUMBER OF SEQ ID NOS: 1704
;; SOFTWARE: pt_seq_genes Version 1.0
;; SEQ ID NO 947
;; LENGTH: 559
;; TYPE: PRT
;; ORGANISM: Homo sapiens

US-10-821-234-947

Query Match 58.3%; Score 35; DB 6; Length 559;
Best Local Similarity 62.5%; Pred. No. 61;
Matches 5; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 2 YNFFPRKP 9
|:||||:|
Db 120 FNFFPENP 127

RESULT 9

US-11-072-512-2818
;; Sequence 2818, Application US/11072512
;; Publication No. US20060029945A1
;; GENERAL INFORMATION:
;; APPLICANT: ISOGAI, TAKAO
;; APPLICANT: SUGIYAMA, TOMOYASU
;; APPLICANT: OTSUKI, TETSUJI
;; APPLICANT: WAKAMATSU, AI
;; APPLICANT: SATO, HIROYUKI
;; APPLICANT: ISHII, SHIZUKO
;; APPLICANT: YAMAMOTO, JUN-ICHI
;; APPLICANT: ISONO, YUUKO
;; APPLICANT: HIO, YURI
;; APPLICANT: OTSUKA, KAORU
;; APPLICANT: NAGAI, KEIICHI
;; APPLICANT: IRIE, RYOTARO
;; APPLICANT: TAMECHIKA, ICHIRO
;; APPLICANT: SEKI, NAOHICO
;; APPLICANT: YOSHIKAWA, TSUTOMU
;; APPLICANT: OTSUKA, MOTOVUKI
;; APPLICANT: NAGAHARI, KENJI
;; APPLICANT: MASUHO, YASUHIKO
;; TITLE OF INVENTION: Novel full length cDNA
;; FILE REFERENCE: 084335-0191
;; CURRENT APPLICATION NUMBER: US/11/072,512
;; CURRENT FILING DATE: 2005-03-07
;; PRIOR APPLICATION NUMBER: US 60/350,978
;; PRIOR FILING DATE: 2002-01-25
;; PRIOR APPLICATION NUMBER: JP 2001-379298
;; PRIOR FILING DATE: 2001-11-05
;; NUMBER OF SEQ ID NOS: 4096
;; SOFTWARE: PatentIn Ver. 2.1
;; SEQ ID NO 2818
;; LENGTH: 713
;; TYPE: PRT
;; ORGANISM: Homo sapiens
US-11-072-512-2818

Query Match 58.3%; Score 35; DB 7; Length 713;
Best Local Similarity 75.0%; Pred. No. 77;
Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 3 NFFPRKP 10
|:||||:|
Db 77 NFFPRKP 84

RESULT 10

US-10-718-264-105
;; Sequence 105, Application US/10718264
;; Publication No. US2004016140A1
;; GENERAL INFORMATION:
;; APPLICANT: JESTIN, Andre
;; APPLICANT: ALBINA, Emanuel
;; APPLICANT: Le CANN, Pierre
;; APPLICANT: BLANCHARD, Philippe
;; APPLICANT: HUTET, Evelyne
;; APPLICANT: ARNAULD, Claire
;; APPLICANT: TRUONG, Catherine
;; APPLICANT: MAHE, Dominique
;; APPLICANT: CARIOLET, Roland

; APPLICANT: MADEC, Francois
; TITLE OF INVENTION: CIRCOVIRUS SEQUENCES ASSOCIATED WITH PIGLET WEIGHT LOSS
; FILE REFERENCE: 065691/0176
; CURRENT APPLICATION NUMBER: US/10/718,264
; PRIOR FILING DATE: 2003-11-21
; PRIOR APPLICATION NUMBER: US/09/514,245B
; PRIOR FILING DATE: 2000-02-28
; PRIOR APPLICATION NUMBER: FR 97/15396
; PRIOR FILING DATE: 1997-12-05
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 105
; LENGTH: 15
; TYPE: PRT
; ORGANISM: Type A PWD circovirus
US-10-718-264-105

Query Match 56.7%; Score 34; DB 6; Length 15;
Best Local Similarity 62.5%; Pred. No. 2.6;
Matches 5; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 2 YNFFPRKP 9
| | | | |
Db 8 YEFYPRDP 15

RESULT 11
US-10-718-264-106
; Sequence 106, Application US/10718264
; Publication No. US20040161410A1
; GENERAL INFORMATION:
; APPLICANT: JESTIN, Andre
; APPLICANT: ALBINA, Emanuel
; APPLICANT: Le CANN, Pierre
; APPLICANT: BLANCHARD, Philippe
; APPLICANT: HUTET, Evelyne
; APPLICANT: ARNAULD, Claire
; APPLICANT: TRUONG, Catherine
; APPLICANT: MAHE, Dominique
; APPLICANT: CARIOLET, Roland
; APPLICANT: MADEC, Francois
; TITLE OF INVENTION: CIRCOVIRUS SEQUENCES ASSOCIATED WITH PIGLET WEIGHT LOSS
; FILE REFERENCE: 065691/0176
; CURRENT APPLICATION NUMBER: US/10/718,264
; PRIOR FILING DATE: 2003-11-21
; PRIOR APPLICATION NUMBER: US/09/514,245B
; PRIOR FILING DATE: 2000-02-28
; PRIOR APPLICATION NUMBER: FR 97/15396
; PRIOR FILING DATE: 1997-12-05
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 106
; LENGTH: 15
; TYPE: PRT
; ORGANISM: Type A PWD circovirus
US-10-718-264-106

Query Match 56.7%; Score 34; DB 6; Length 15;
Best Local Similarity 62.5%; Pred. No. 2.6;
Matches 5; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 2 YNFFPRKP 9
| | | | |
Db 4 YEFYPRDP 11

RESULT 12
US-10-718-264-105
; Sequence 105, Application US/10718264
; Publication No. US20040161410A1
; GENERAL INFORMATION:

; APPLICANT: JESTIN, Andre
; APPLICANT: ALBINA, Emanuel
; APPLICANT: Le CANN, Pierre
; APPLICANT: BLANCHARD, Philippe
; APPLICANT: HUTET, Evelyne
; APPLICANT: ARNAULD, Claire
; APPLICANT: TRUONG, Catherine
; APPLICANT: MAHE, Dominique
; APPLICANT: CARIOLET, Roland
; APPLICANT: MADEC, Francois
; TITLE OF INVENTION: CIRCOVIRUS SEQUENCES ASSOCIATED WITH PIGLET WEIGHT LOSS
; FILE REFERENCE: 065691/0176
; CURRENT APPLICATION NUMBER: US/10/718,264
; CURRENT FILING DATE: 2003-11-21
; PRIOR APPLICATION NUMBER: US/09/514,245B
; PRIOR FILING DATE: 2000-02-28
; PRIOR APPLICATION NUMBER: FR 97/15396
; PRIOR FILING DATE: 1997-12-05
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 105
; LENGTH: 15
; TYPE: PRT
; ORGANISM: Type A PWD circovirus
US-10-718-264-105

Query Match 56.7%; Score 34; DB 6; Length 15;
Best Local Similarity 62.5%; Pred. No. 2.6;
Matches 5; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 2 YNFFPRKP 9
| | | | |
Db 8 YEFYPRDP 15

RESULT 13
US-10-718-264-106
; Sequence 106, Application US/10718264
; Publication No. US20040161410A1
; GENERAL INFORMATION:
; APPLICANT: JESTIN, Andre
; APPLICANT: ALBINA, Emanuel
; APPLICANT: Le CANN, Pierre
; APPLICANT: BLANCHARD, Philippe
; APPLICANT: HUTET, Evelyne
; APPLICANT: ARNAULD, Claire
; APPLICANT: TRUONG, Catherine
; APPLICANT: MAHE, Dominique
; APPLICANT: CARIOLET, Roland
; APPLICANT: MADEC, Francois
; TITLE OF INVENTION: CIRCOVIRUS SEQUENCES ASSOCIATED WITH PIGLET WEIGHT LOSS
; FILE REFERENCE: 065691/0176
; CURRENT APPLICATION NUMBER: US/10/718,264
; CURRENT FILING DATE: 2003-11-21
; PRIOR APPLICATION NUMBER: US/09/514,245B
; PRIOR FILING DATE: 2000-02-28
; PRIOR APPLICATION NUMBER: FR 97/15396
; PRIOR FILING DATE: 1997-12-05
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 106
; LENGTH: 15
; TYPE: PRT
; ORGANISM: Type A PWD circovirus
US-10-718-264-106

Query Match 56.7%; Score 34; DB 6; Length 15;
Best Local Similarity 62.5%; Pred. No. 2.6;
Matches 5; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 2 YNFFPRKP 9

Search completed: February 21, 2006, 08:26:29
Job time : 6.57895 secs

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Db      4 YEFYPRDP 11
| | | | |
RESULT 14
US-10-895-064-1953
; Sequence 1953, Application US/10895064
; Publication No. US20060018923A1
; GENERAL INFORMATION:
; APPLICANT: PEIRIS, JOSEPH S.M.
; APPLICANT: YUEN, KWOK YUNG
; APPLICANT: POON, LIT MAN
; APPLICANT: GUAN, YI
; APPLICANT: CHAN, KWOK HUNG
; APPLICANT: NICHOLLS, JOHN M.
; APPLICANT: LEUNG, FREDERICK C.
; TITLE OF INVENTION: A NOVEL HUMAN VIRUS CAUSING RESPIRATORY TRACT INFECTION AND USES
; TITLE OF INVENTION: THEREOF
; FILE REFERENCE: V0690.0031
; CURRENT APPLICATION NUMBER: US/10/895,064
; CURRENT FILING DATE: 2004-07-21
; NUMBER OF SEQ ID NOS: 2918
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 1953
; LENGTH: 21
; TYPE: PRT
; ORGANISM: Corononavirus-HKU1
US-10-895-064-1953

Query Match      56.7%; Score 34; DB 6; Length 21;
Best Local Similarity 66.7%; Pred. No. 3.6;
Matches 6; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy      2 YNFFPRKPK 10
| | | | |
Db      11 YLFYKRKPK 19

RESULT 15
US-11-049-536-244
; Sequence 244, Application US/11049536
; Publication No. US20060024297A1
; GENERAL INFORMATION:
; APPLICANT: Wood, Clive R.
; APPLICANT: Dransfield, Daniel T.
; APPLICANT: Pieters, Henk
; APPLICANT: Hoet, Rene
; APPLICANT: Hufton, Simon E.
; TITLE OF INVENTION: TIE COMPLEX BINDING PROTEINS
; FILE REFERENCE: 10280-128001
; CURRENT APPLICATION NUMBER: US/11/049,536
; CURRENT FILING DATE: 2005-02-02
; PRIOR APPLICATION NUMBER: US 10/916,840
; PRIOR FILING DATE: 2004-08-12
; PRIOR APPLICATION NUMBER: US 60/494,713
; PRIOR FILING DATE: 2003-08-12
; NUMBER OF SEQ ID NOS: 721
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 244
; LENGTH: 108
; TYPE: PRT
; ORGANISM: ARTIFICIAL SEQUENCE
; FEATURE:
; OTHER INFORMATION: Antibody
US-11-049-536-244

Query Match      56.7%; Score 34; DB 7; Length 108;
Best Local Similarity 83.3%; Pred. No. 18;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy      2 YNFFPR 7
| | | | |
Db      92 YNFFPR 97

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